

Office of Employment and Population Statistics

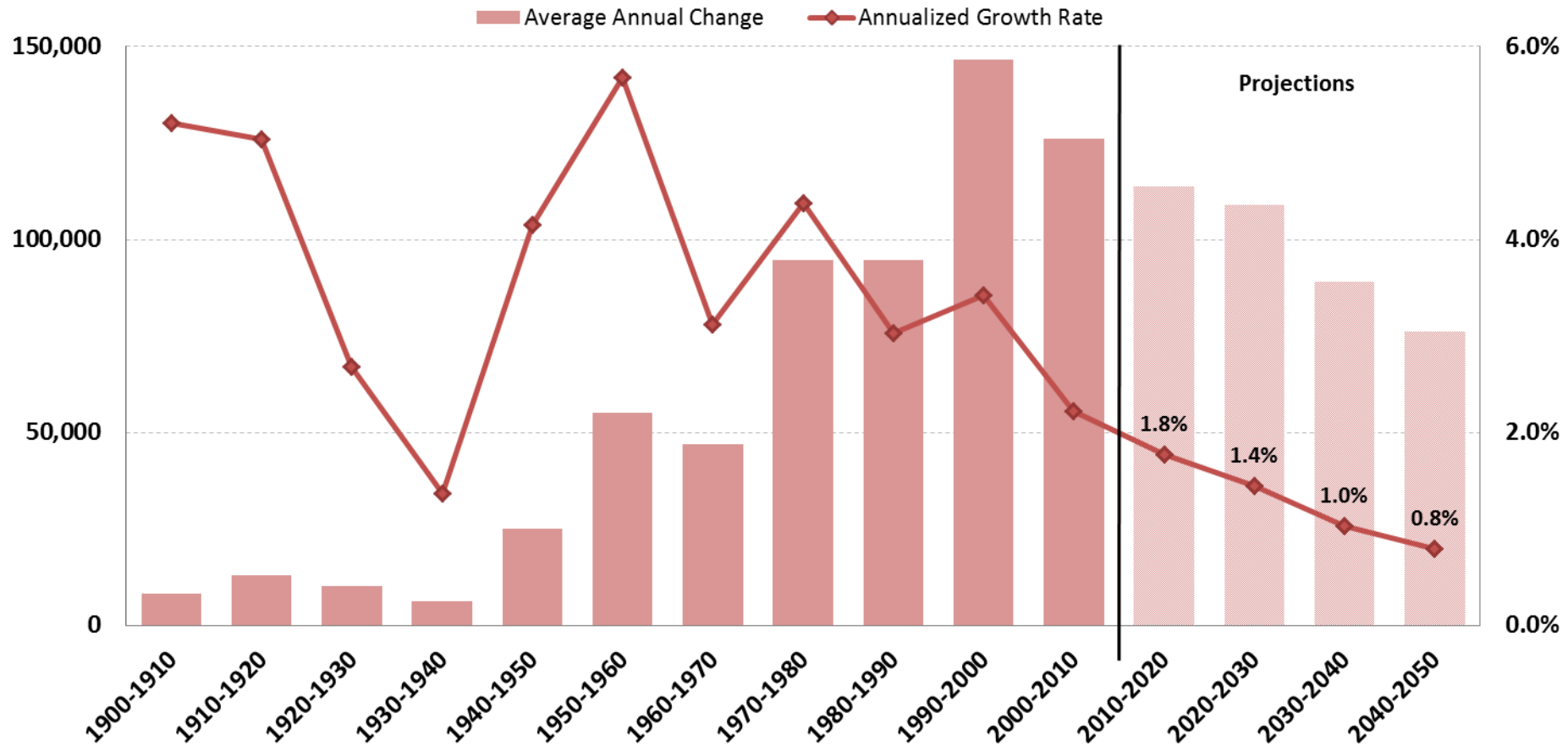
January 6, 2015

Agenda

- Demographics
- Labor Market Information
- November 2014 Employment Highlights
- How to Use & Where to Find LMI Data
- Organization & Contact Information
- Questions

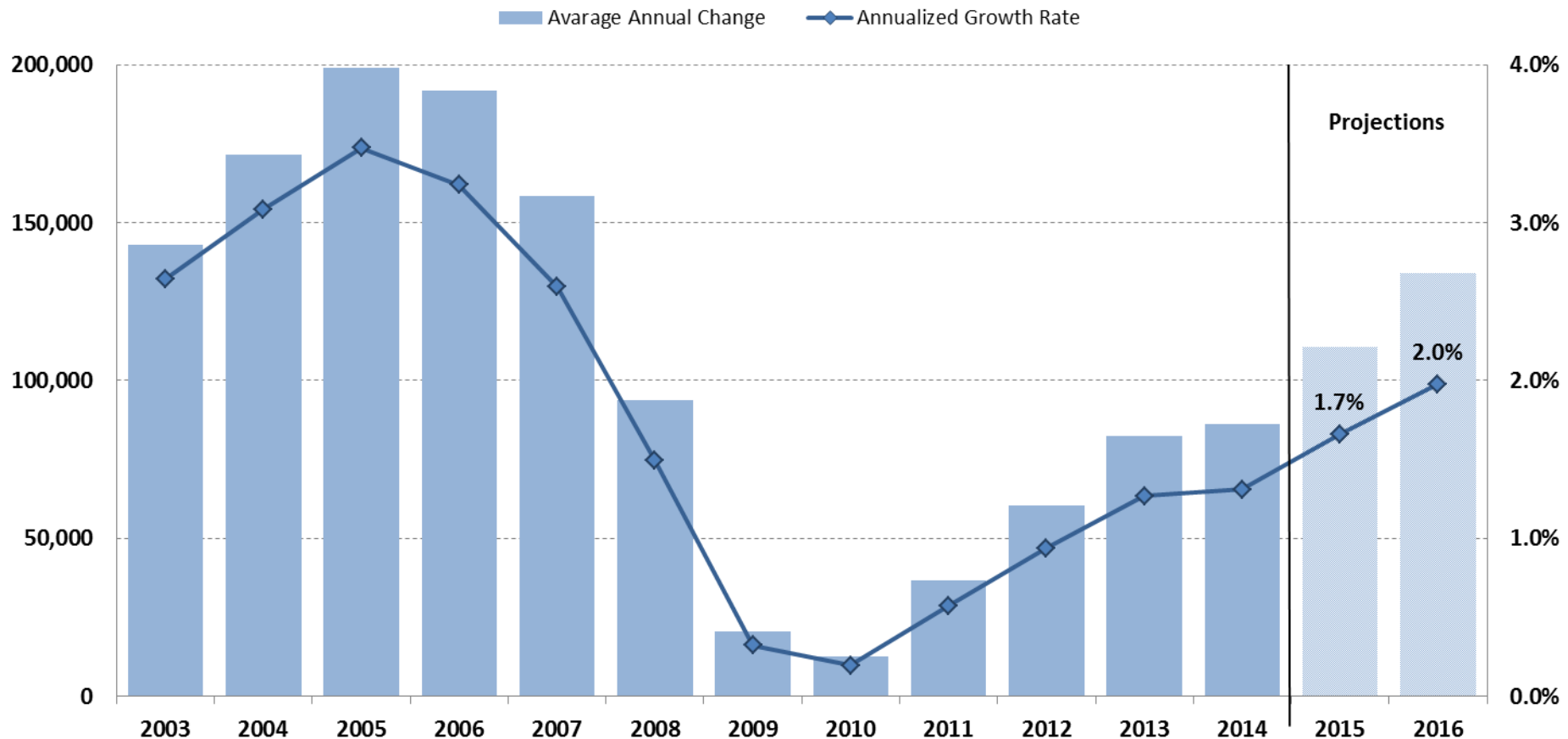
Demographics

Arizona Population Growth, 1900-2050



Prepared by ADOA, Office of Employment and Population Statistics in cooperation with the U.S. Census Bureau

Arizona Population Growth, 2003 - 2016



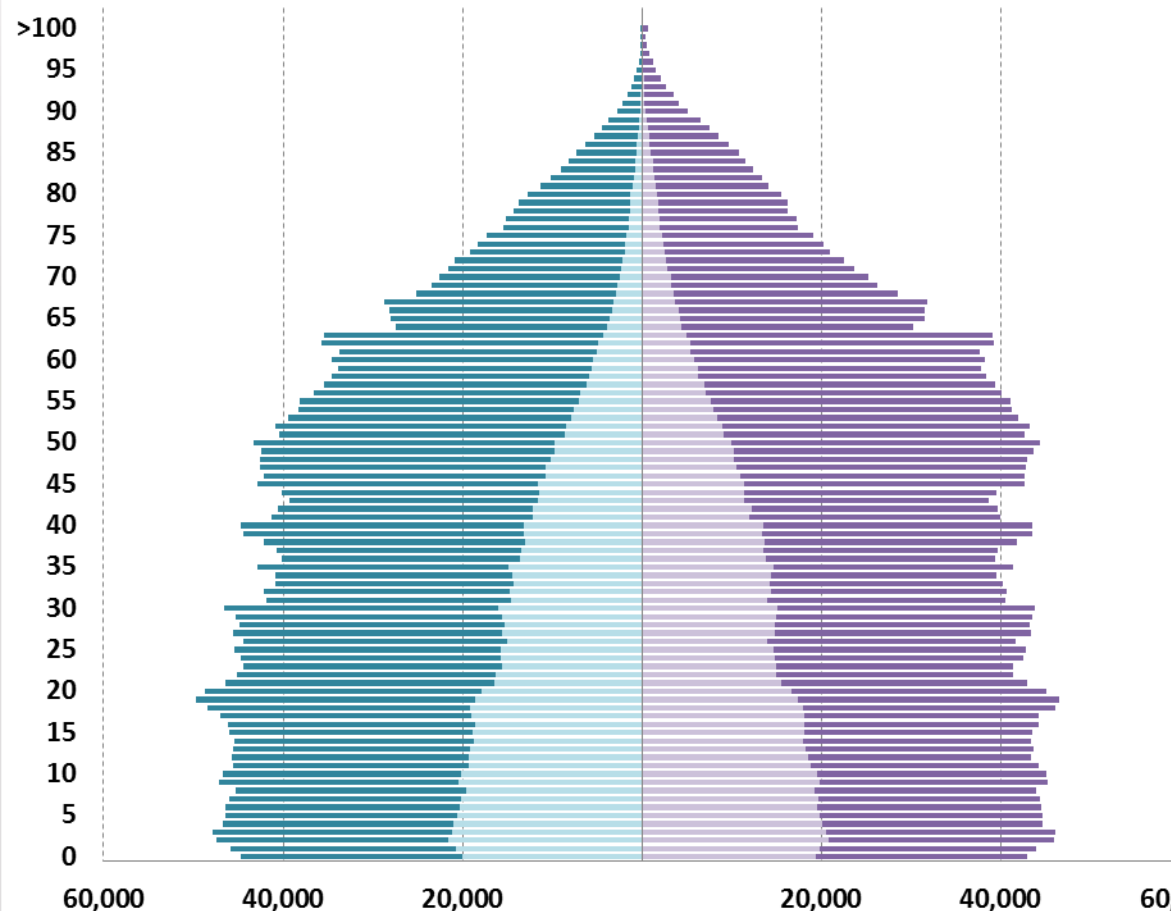
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Hispanic Male Non-Hispanic Male Hispanic Female Non-Hispanic Female

Arizona

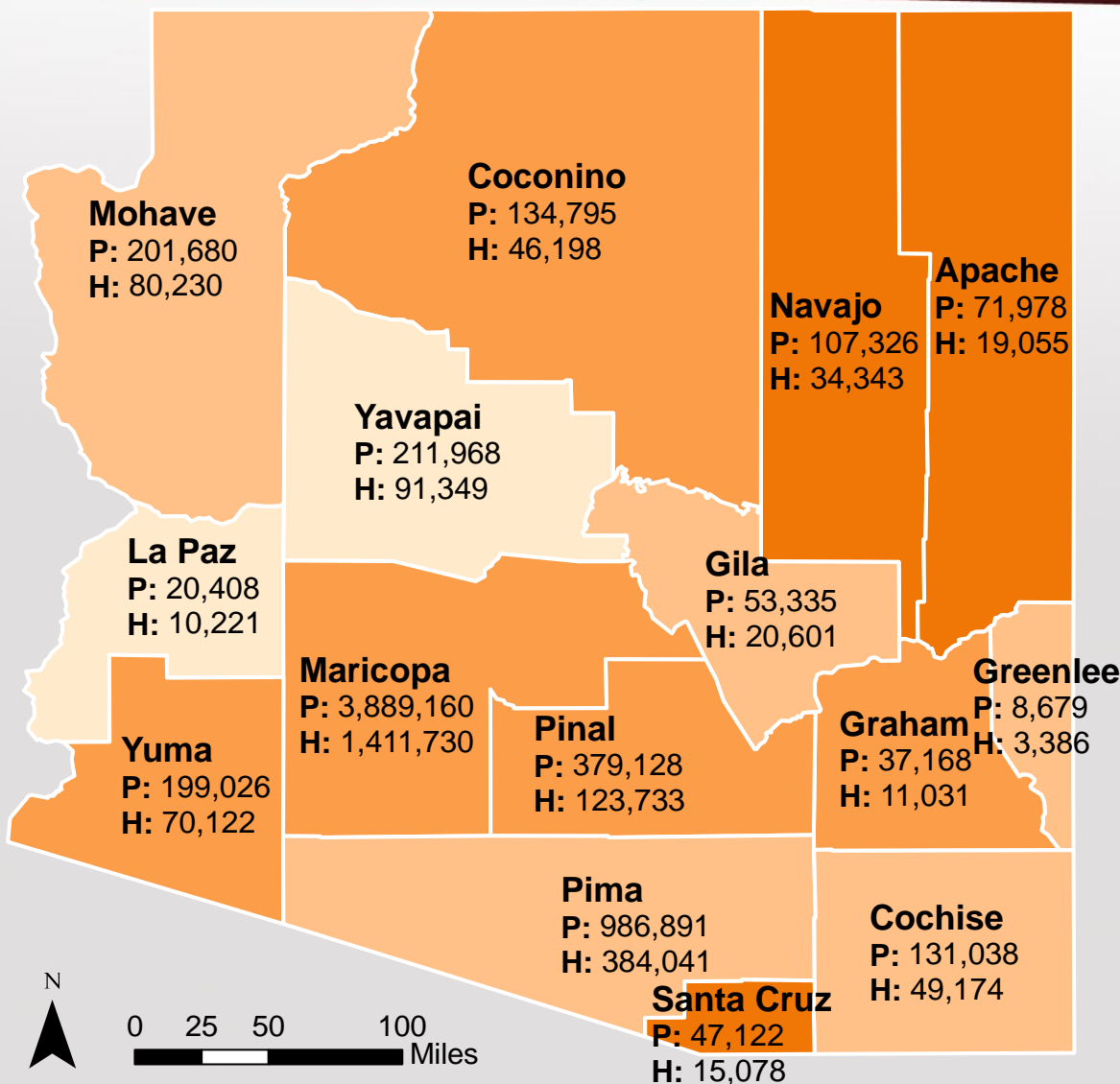
Total Population: 6,392,017

Hispanic		
Male	951,790	14.9%
Female	943,359	14.8%
Non-Hispanic		
Male	2,224,033	34.8%
Female	2,272,835	35.6%
Under 17	1,537,878	24.1%
Age 17 - 24	724,347	11.3%
Age 25 - 34	856,693	13.4%
Age 35 - 44	822,494	12.9%
Age 45 - 54	842,546	13.2%
Age 55 - 64	726,228	11.4%
Over 64	881,831	13.8%



Prepared by ADOA, Office of Employment and Population Statistics in cooperation with the U.S. Census Bureau

Labor Market Information



American Community Survey, 2013 5-Year Estimate

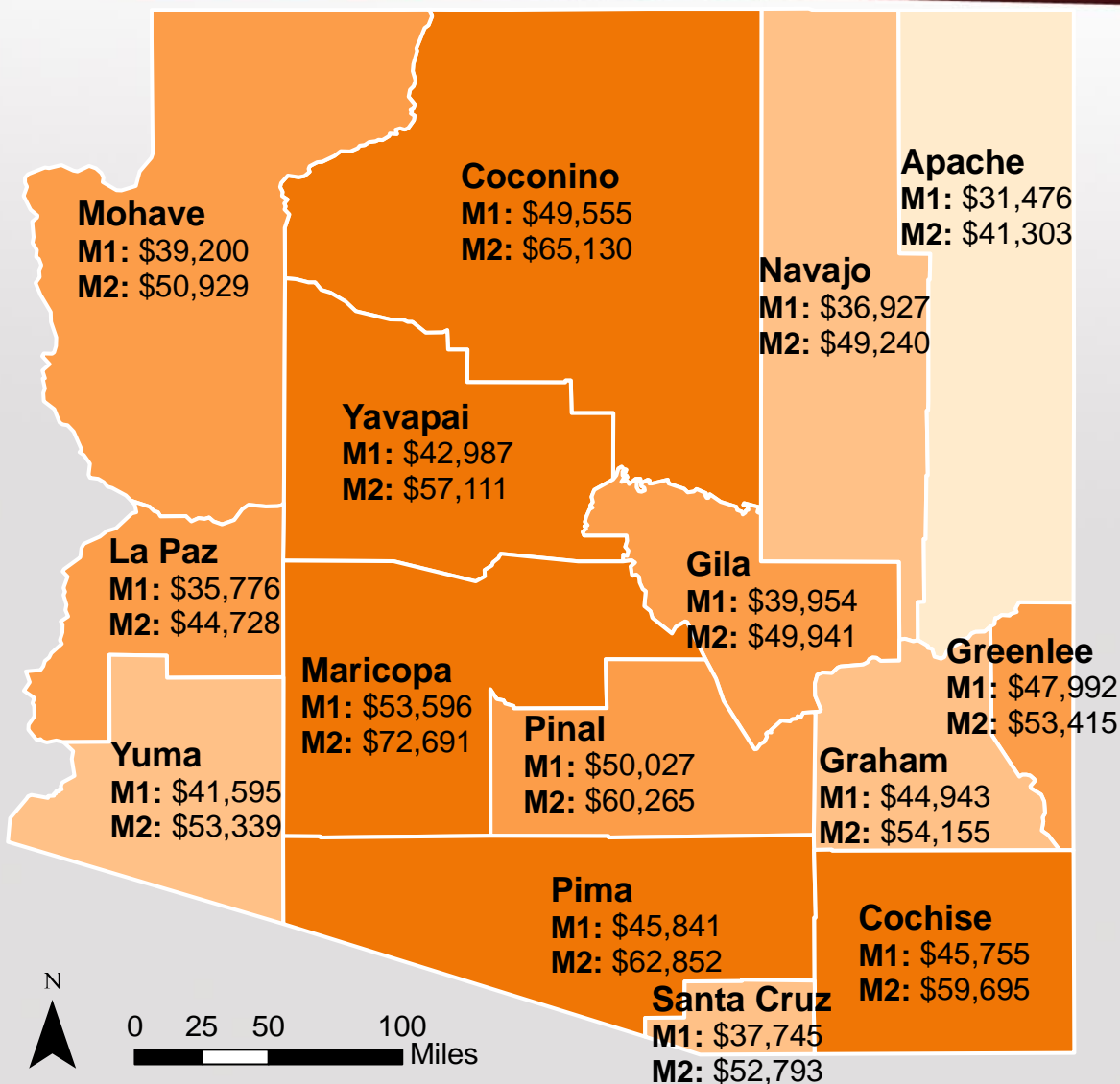
Household Income

P: Population

H: Households

Average Household Size





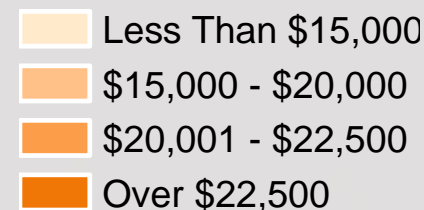
American Community Survey, 2013 5-Year Estimate

Household Income

M1: Median

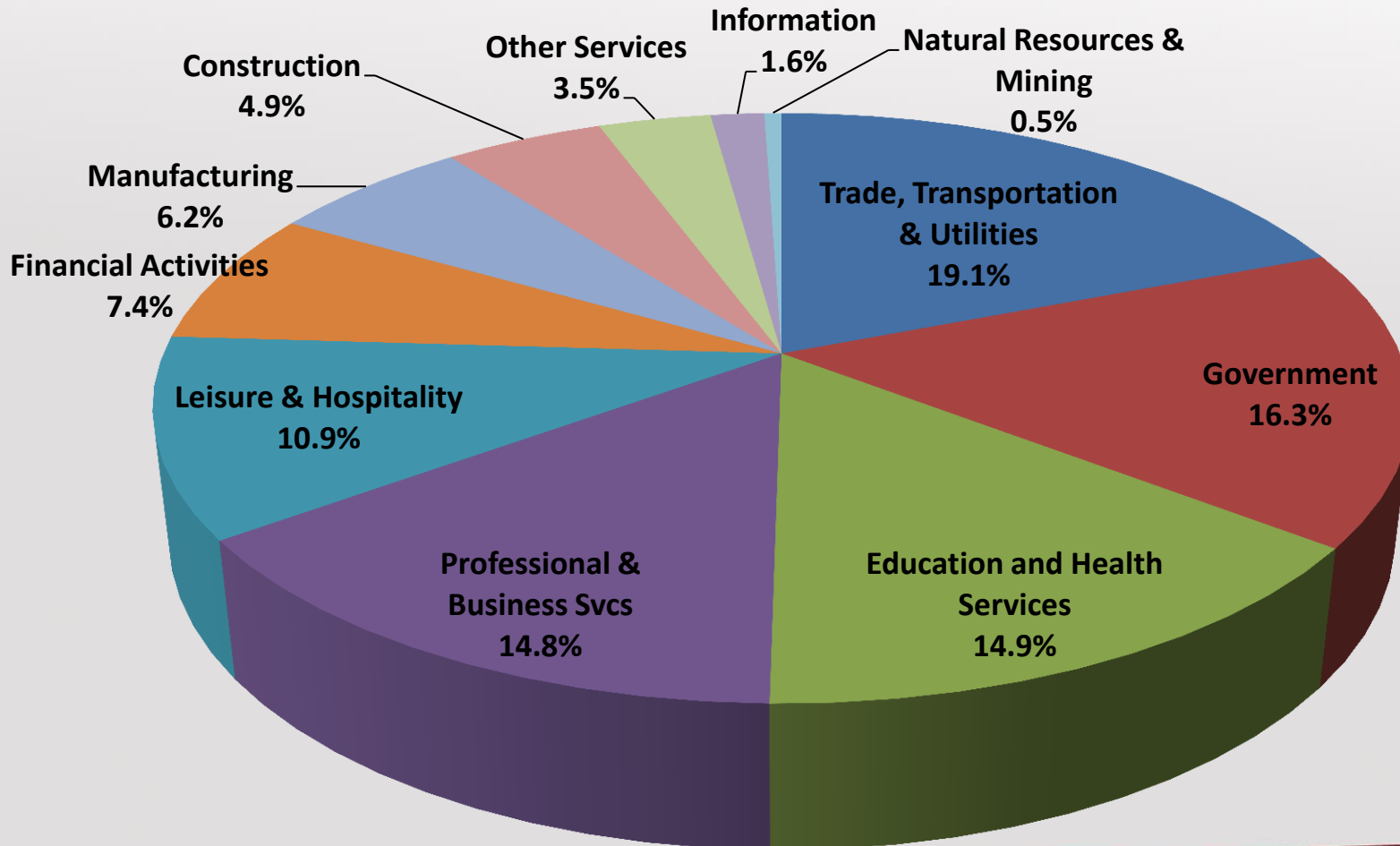
M2: Mean

Per Capita Income

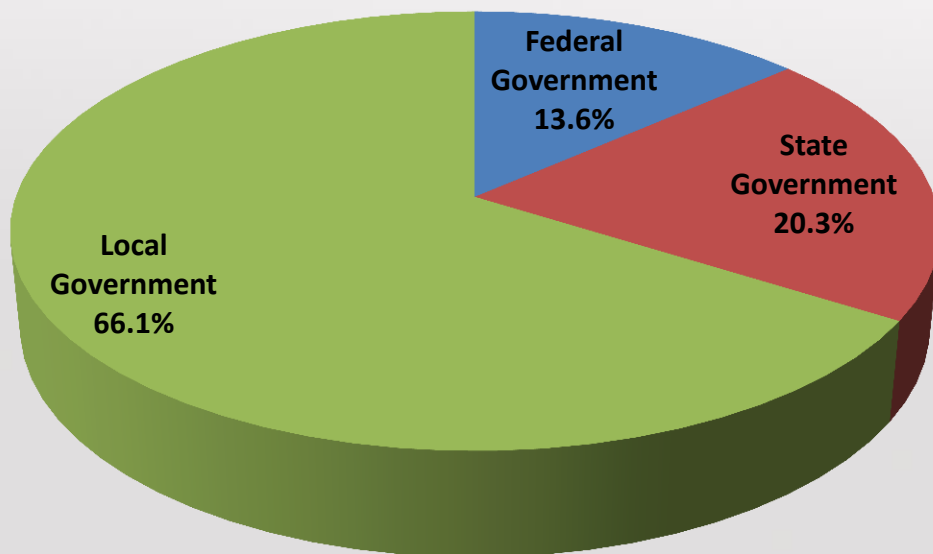


0 25 50 100 Miles

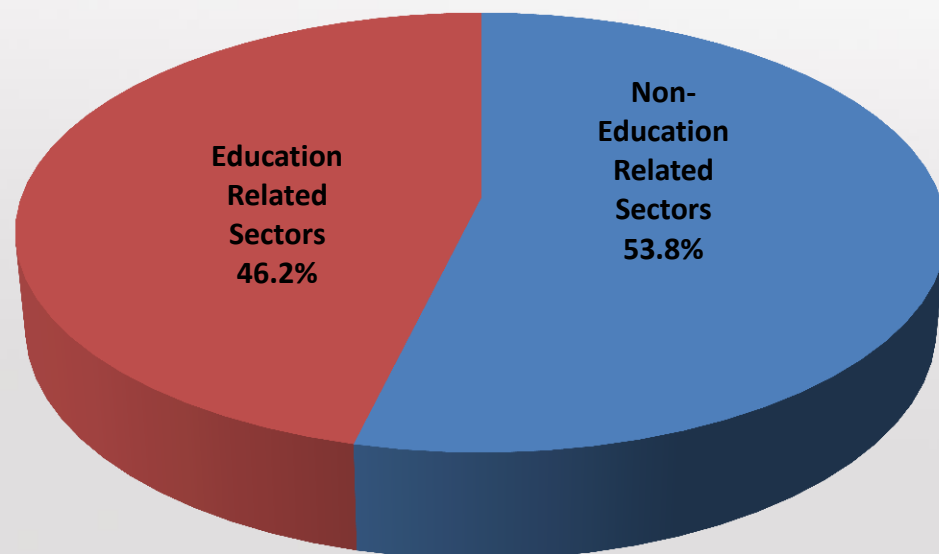
Arizona Industry Employment Share 2013 Annual Average



Arizona Government Subsector Share
2013 Annual Average



Arizona Government Subsector Share
2013 Annual Average



Government Subsectors

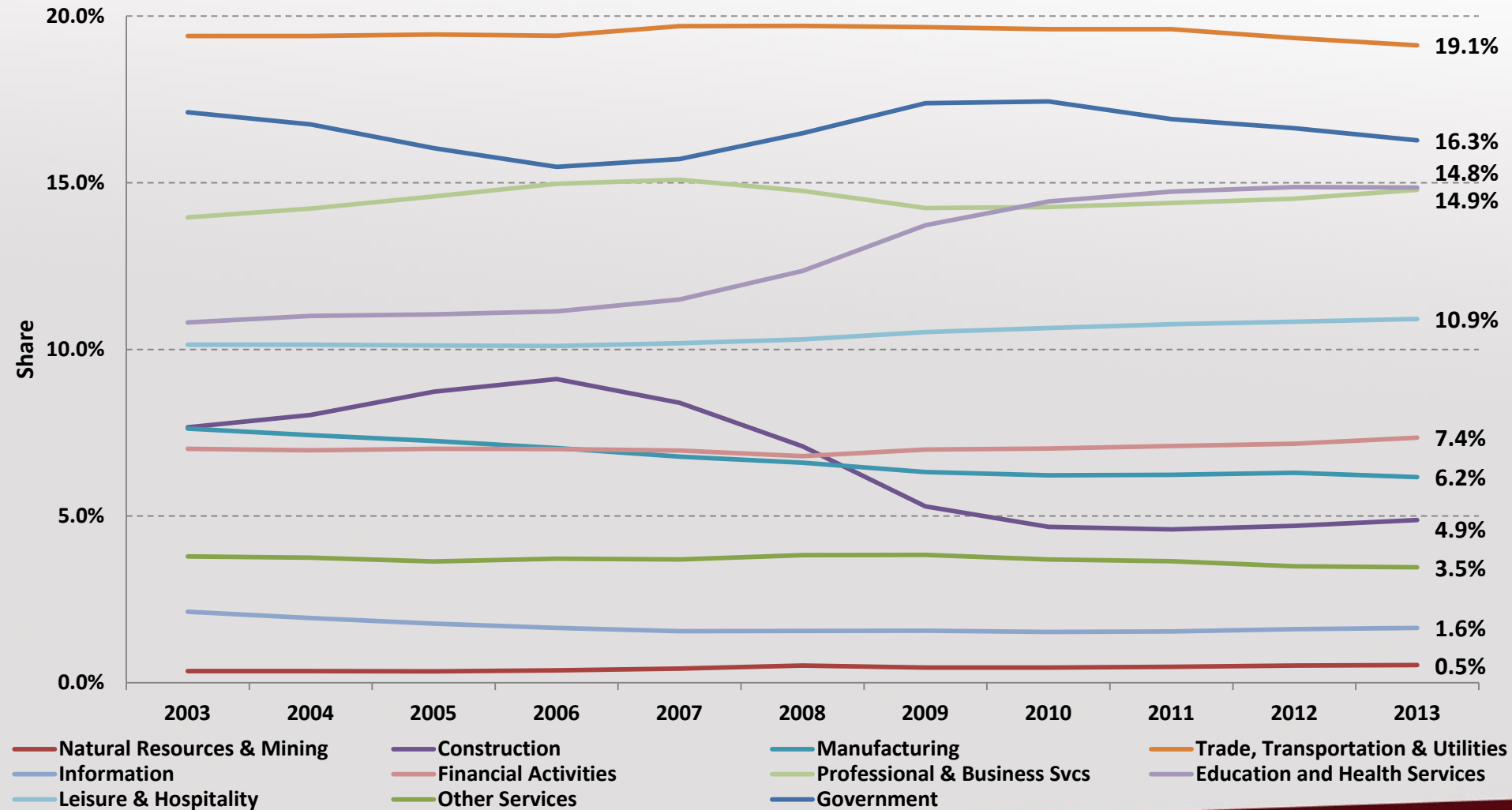
Federal Government
State Government
State Government Education
Local Government
Local Government Education

Employment

55,500
83,300
46,100
270,600
143,100

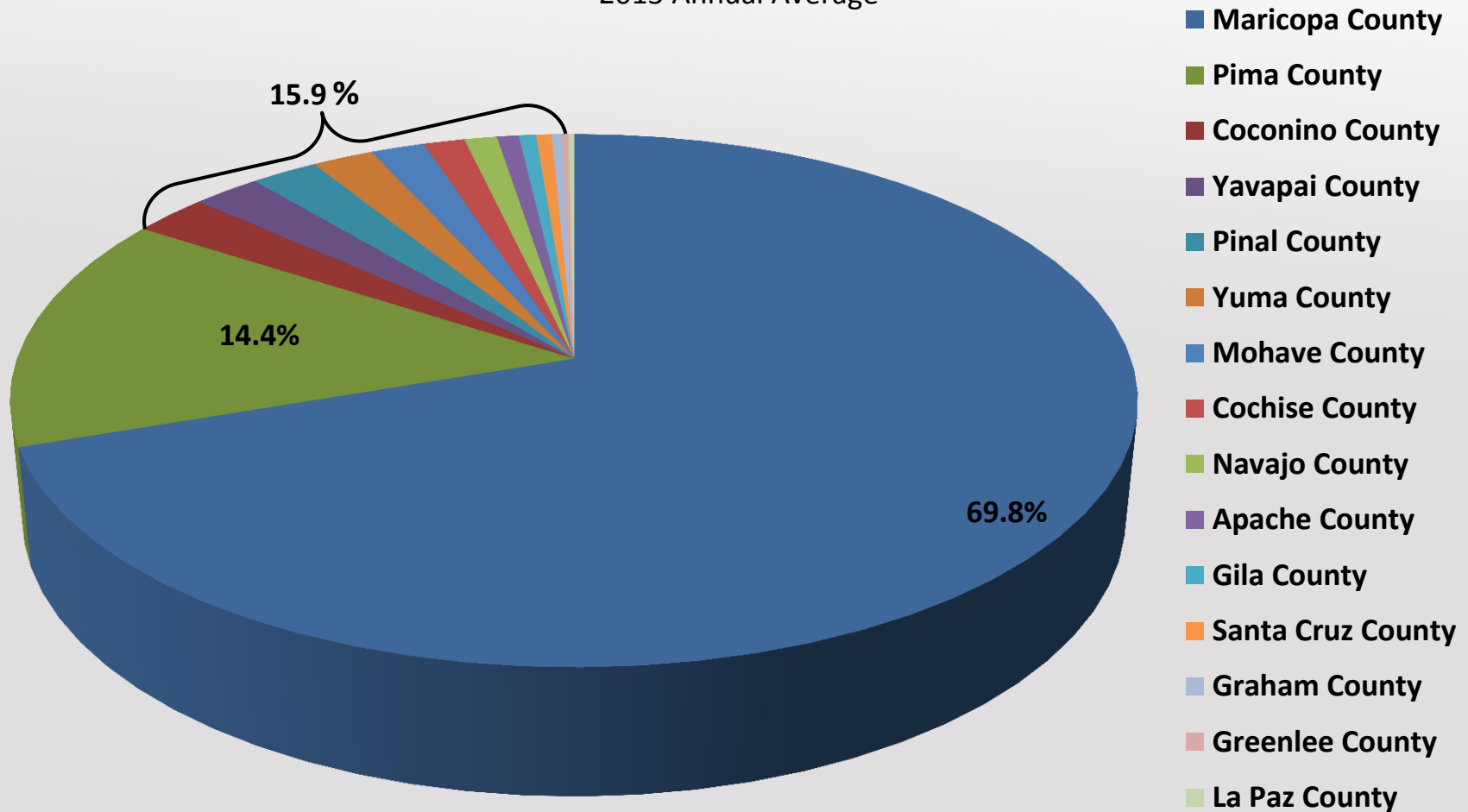
Arizona Total Nonfarm Share by Industry

Annual Average



Arizona County Employment Share

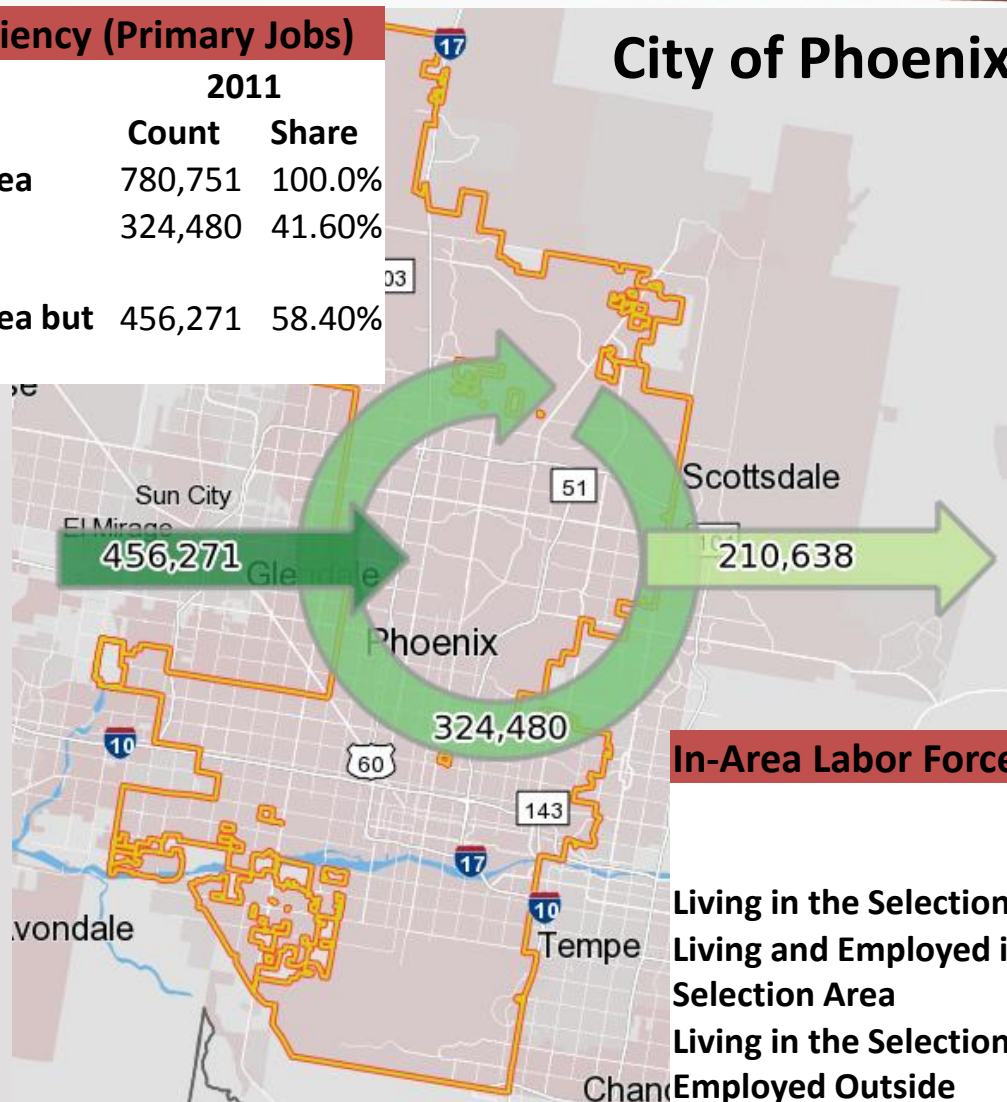
2013 Annual Average



In-Area Employment Efficiency (Primary Jobs)

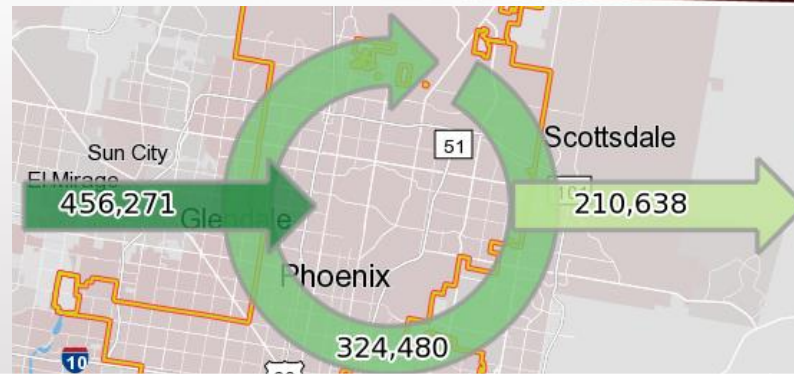
	2011	
	Count	Share
Employed in the Selection Area	780,751	100.0%
Employed and Living in the Selection Area	324,480	41.60%
Employed in the Selection Area but Living Outside	456,271	58.40%

City of Phoenix



In-Area Labor Force Efficiency (Primary Jobs)

	2011	
	Count	Share
Living in the Selection Area	535,118	100.0%
Living and Employed in the Selection Area	324,480	60.60%
Living in the Selection Area but Employed Outside	210,638	39.40%



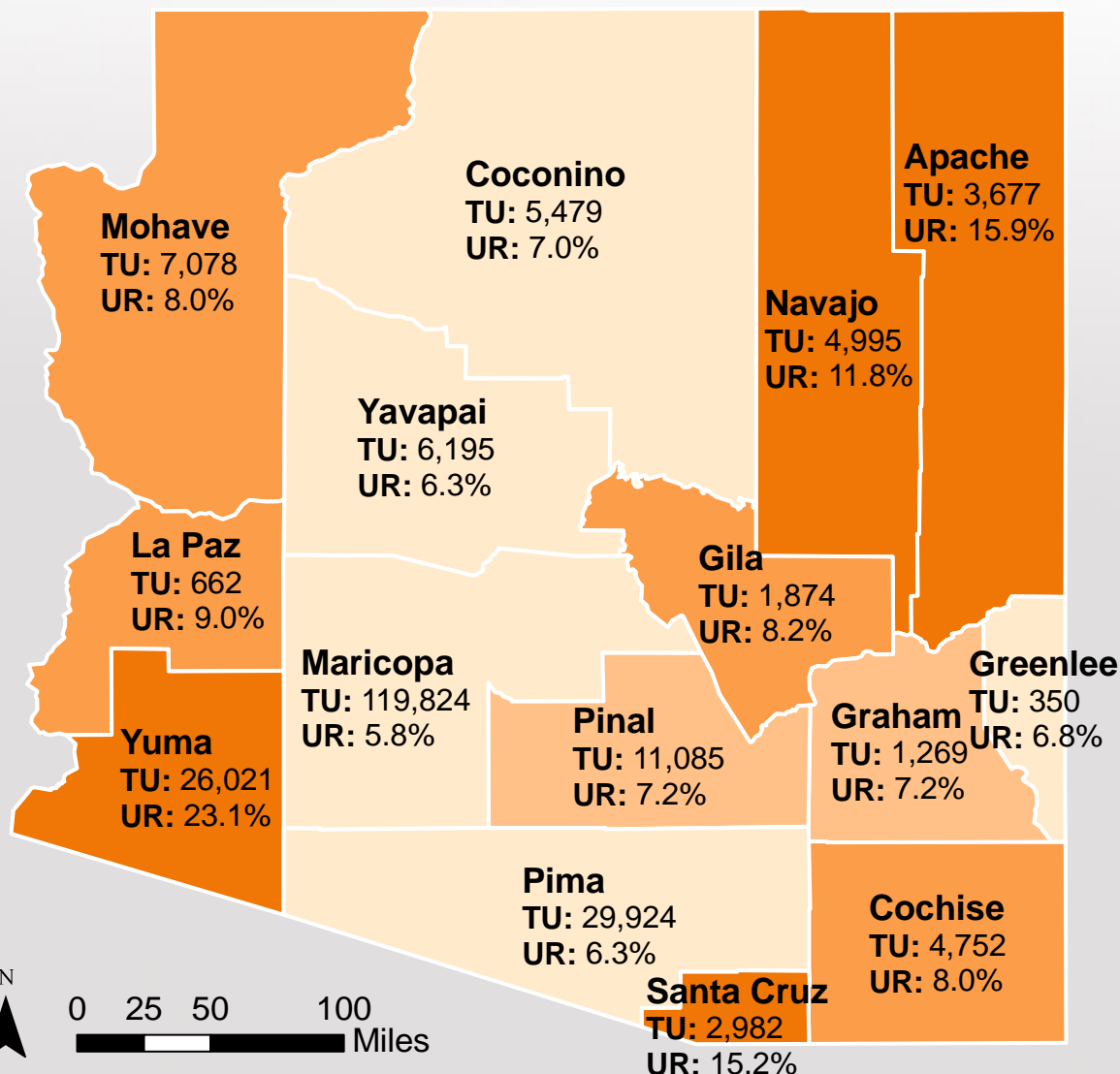
Job Characteristics (Primary Jobs – 2011)	<u>Inflow:</u> Non-Residents Working in Phoenix		<u>Interior Flow:</u> Residents Working in Phoenix		<u>Outflow:</u> Residents Working Outside of Phoenix	
	Count	Share	Count	Share	Count	Share
Jobs Filled	456,271	100.0%	324,480	100.0%	210,638	100.0%
Workers Aged 29 or younger	99,592	21.8%	75,217	23.2%	57,464	27.3%
Workers Aged 30 to 54	270,952	59.4%	189,008	58.2%	117,994	56.0%
Workers Aged 55 or older	85,727	18.8%	60,255	18.6%	35,180	16.7%
Workers Earning \$1,250 per month or less	76,272	16.7%	59,403	18.3%	45,958	21.8%
Workers Earning \$1,251 to \$3,333 per month	174,139	38.2%	137,277	42.3%	86,385	41.0%
Workers Earning More than \$3,333 per month	205,860	45.1%	127,800	39.4%	78,295	37.2%
Workers in the "Goods Producing" Industry Class	46,287	10.1%	35,145	10.8%	29,687	14.1%
Workers in the "Trade, Transportation, and Utilities" Industry Class	105,907	23.2%	61,416	18.9%	47,501	22.6%
Workers in the "All Other Services" Industry Class	304,077	66.6%	227,919	70.2%	133,450	63.4%

- **Civilian Non-institutional Population (CNIP):** Everyone ages 16 and older who is not on active duty in the Armed Forces or residing in prisons or homes for the aged
- **Labor Force** consists of people who are active in the labor market; either as employed workers or as unemployed job seekers
- **Unemployed:** People who do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work
- **Labor Force Participation Rate (LFPR):** The labor force as a percent of civilian non-institutional population

Arizona November 2014 example

$$LFPR = \frac{\text{Labor Force}}{CNIP}$$

$$59.6\% = \frac{(2,870,778 + 208,039)}{5,169,235}$$

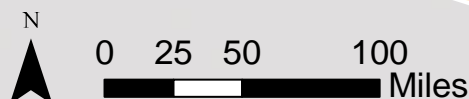
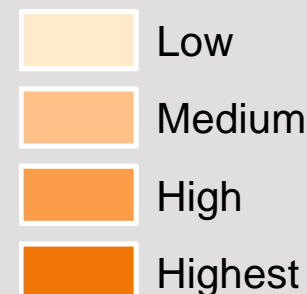


Unemployment, Not Seasonally Adjusted

Arizona Counties,
November 2014

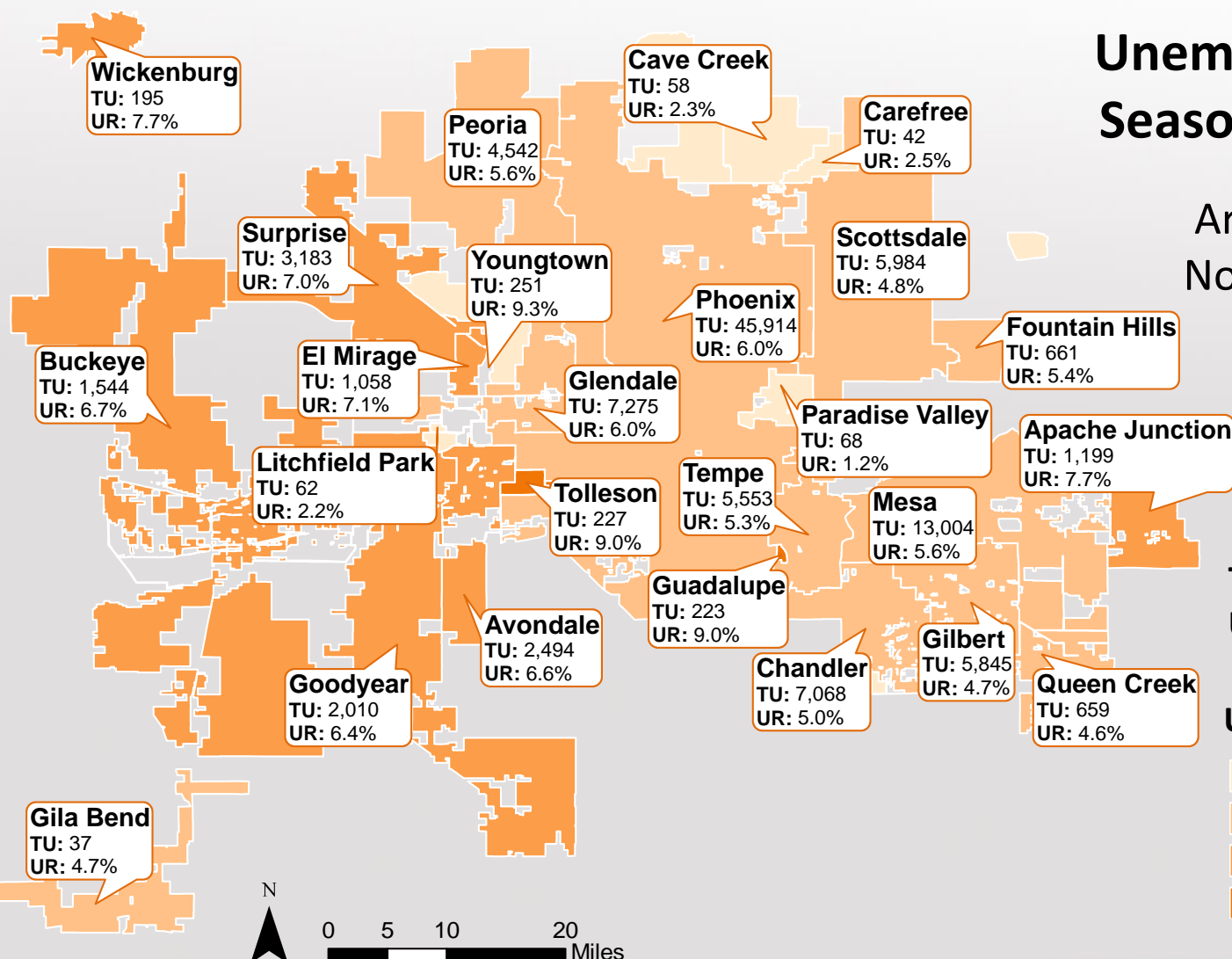
TU: Total Unemployment
UR: Unemployment Rate

Unemployment Rate



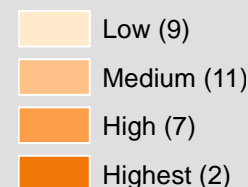
Unemployment, Not Seasonally Adjusted

Arizona Places,
November 2014



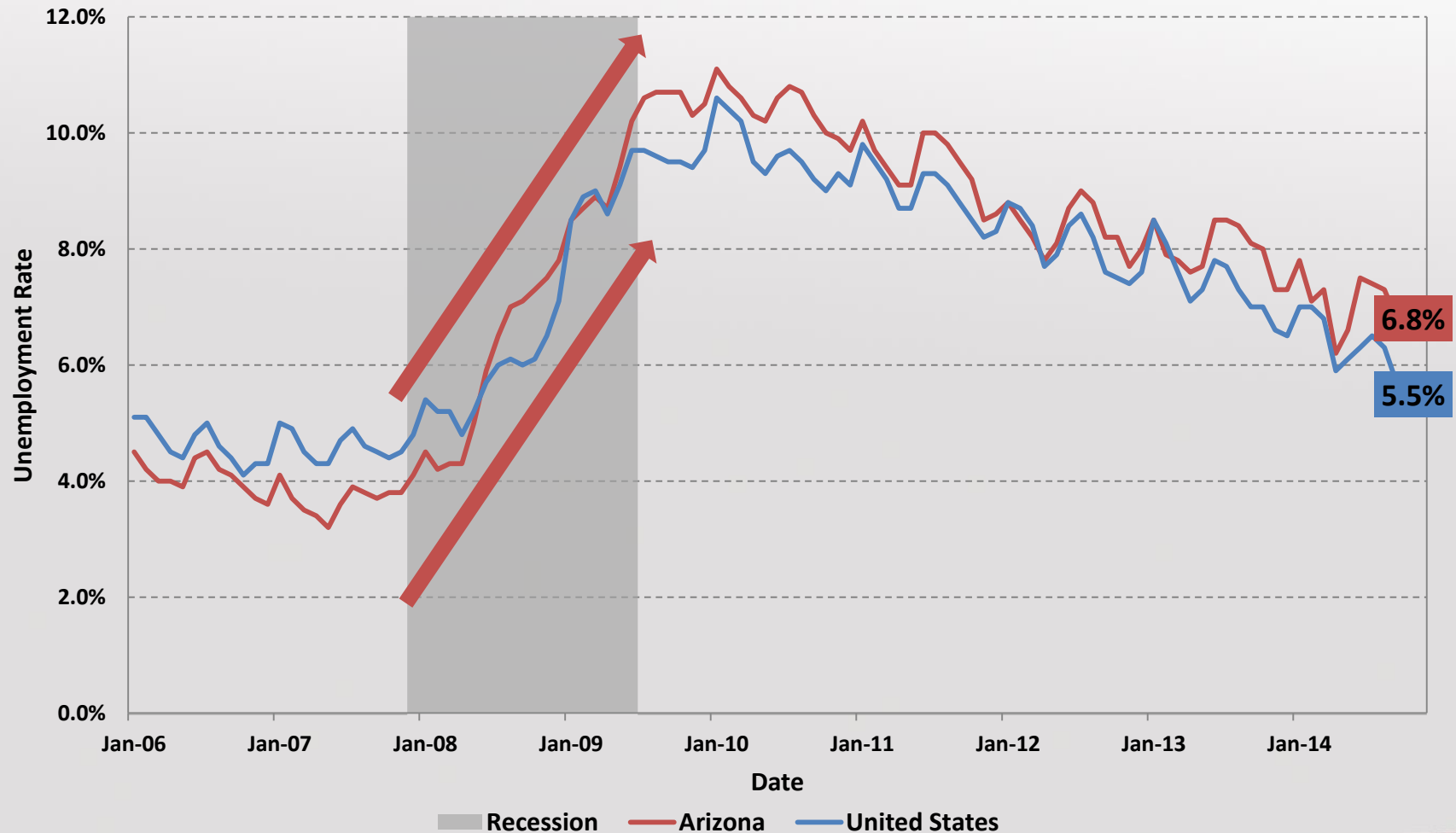
TU: Total Unemployment
UR: Unemployment Rate

Unemployment Rate



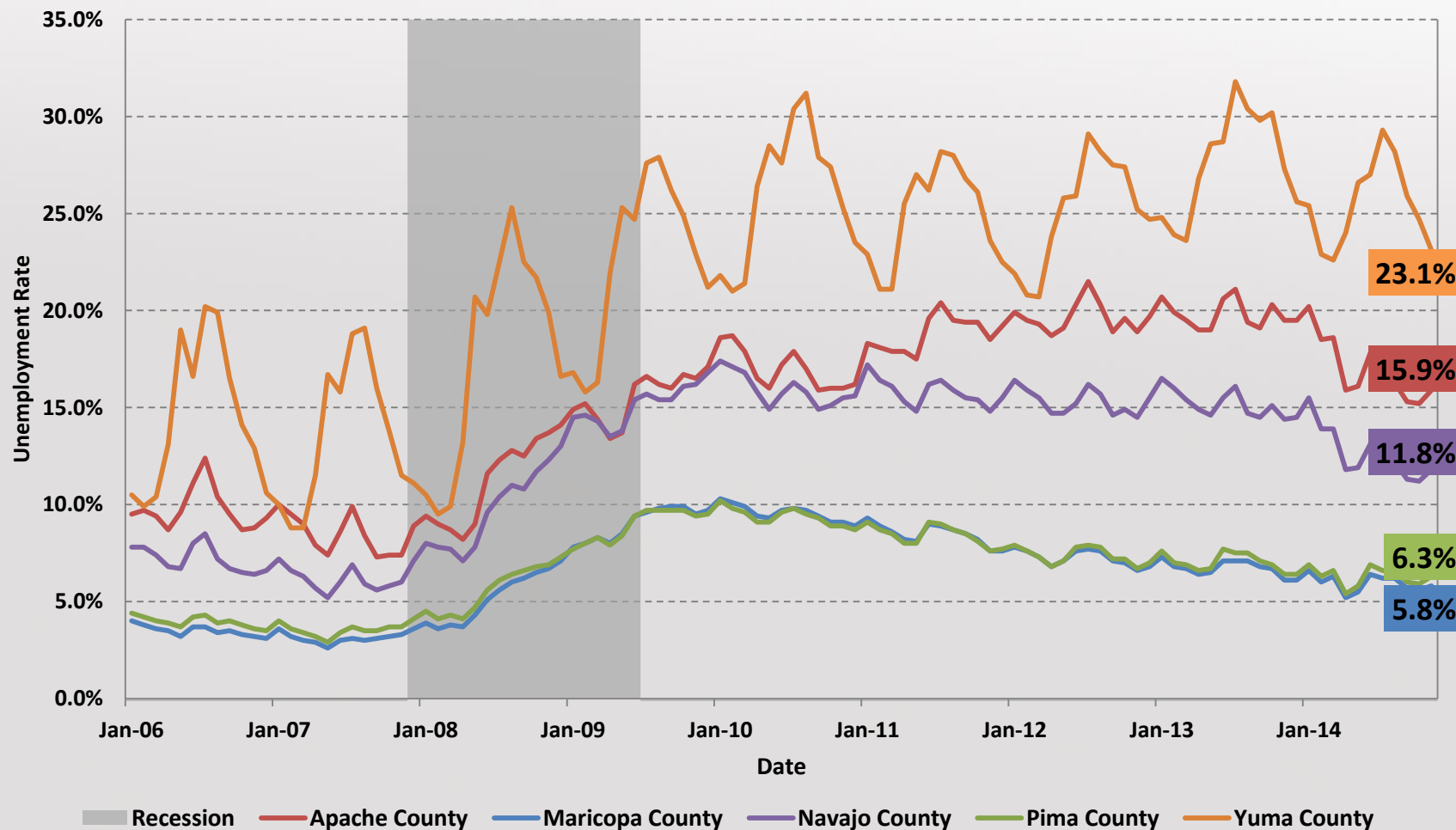
Unemployment Rate

Not Seasonally Adjusted



Unemployment Rate

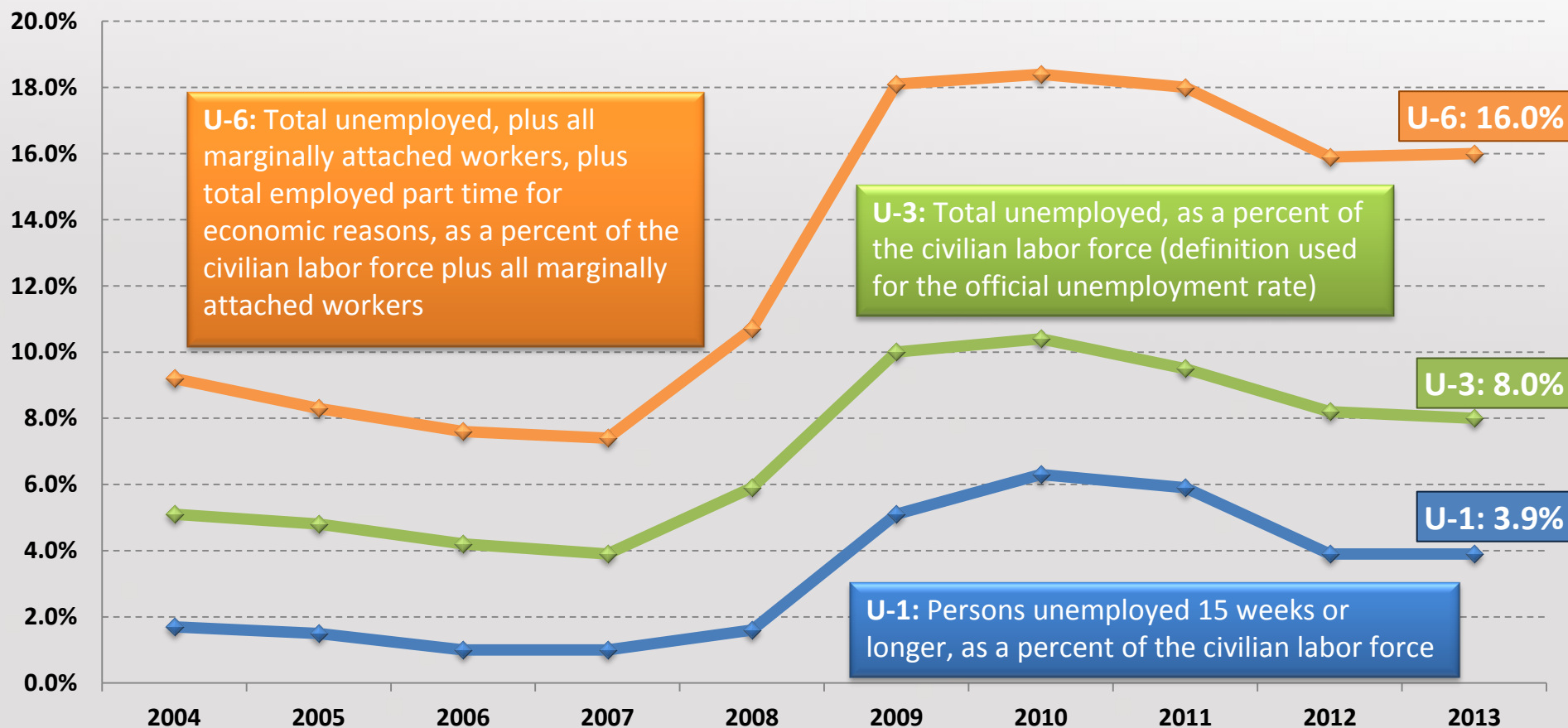
Not Seasonally Adjusted



Alternative Measures of Labor Underutilization

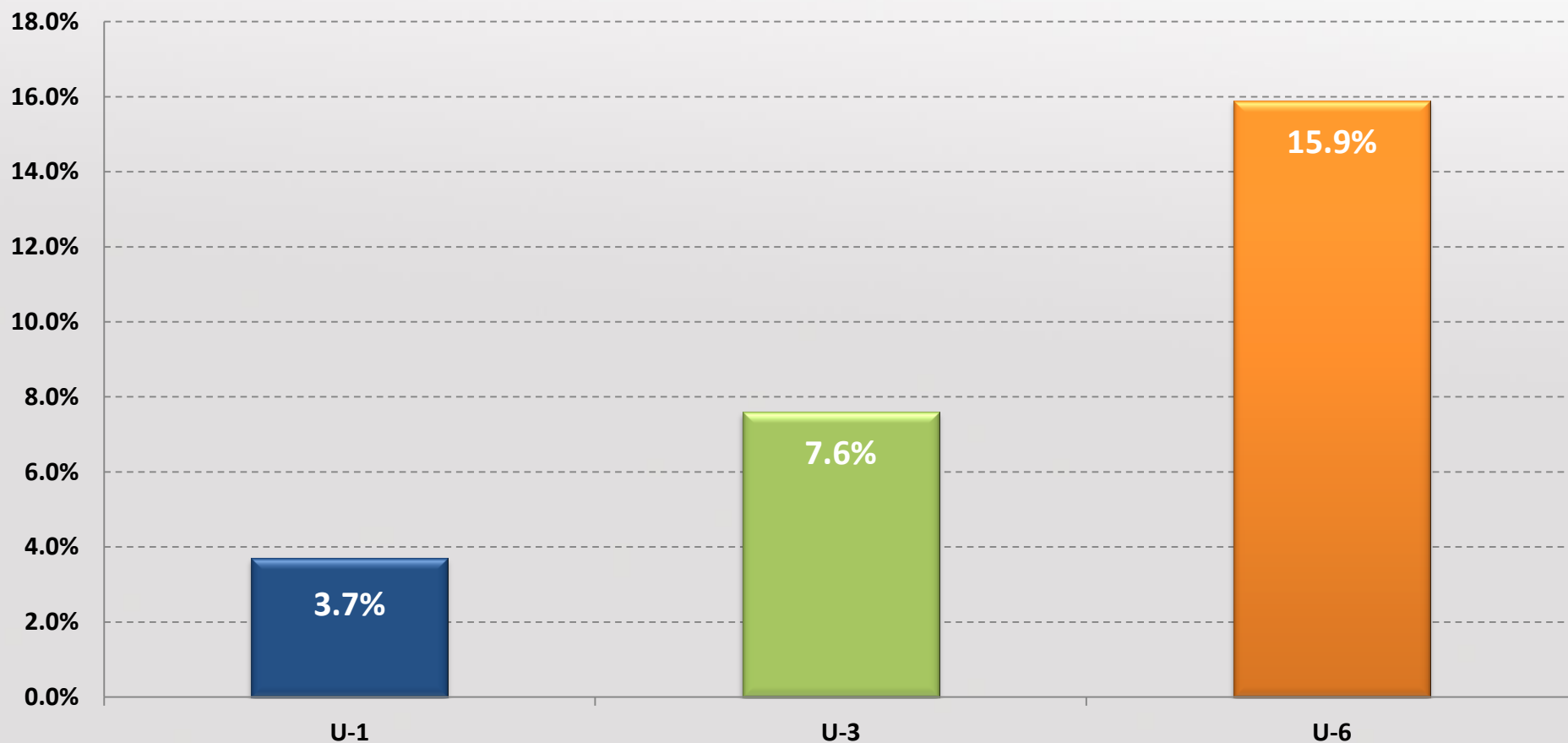
- **U1:** Persons unemployed 15 weeks or longer, as a percent of the civilian labor force
- **U2:** Job losers and persons who completed temporary jobs , as a percent of the civilian labor force
- **U3:** Total unemployed, as a percent of the civilian labor force (official unemployment rate)
- **U4:** U3 + discouraged workers (have given a job-market related reason for not currently looking for work), as a percent of the civilian labor force plus discouraged workers
- **U5:** U4 + all other marginally attached workers (indicate that they want and are available for a job and have looked for work sometime in the past 12 months), as a percent of the civilian labor force plus all persons marginally attached to the labor force
- **U6:** U5 + employed part time for economic reasons, as a percent of the civilian labor force plus all persons marginally attached to labor force

Alternative Measures of Labor Underutilization Annual Averages

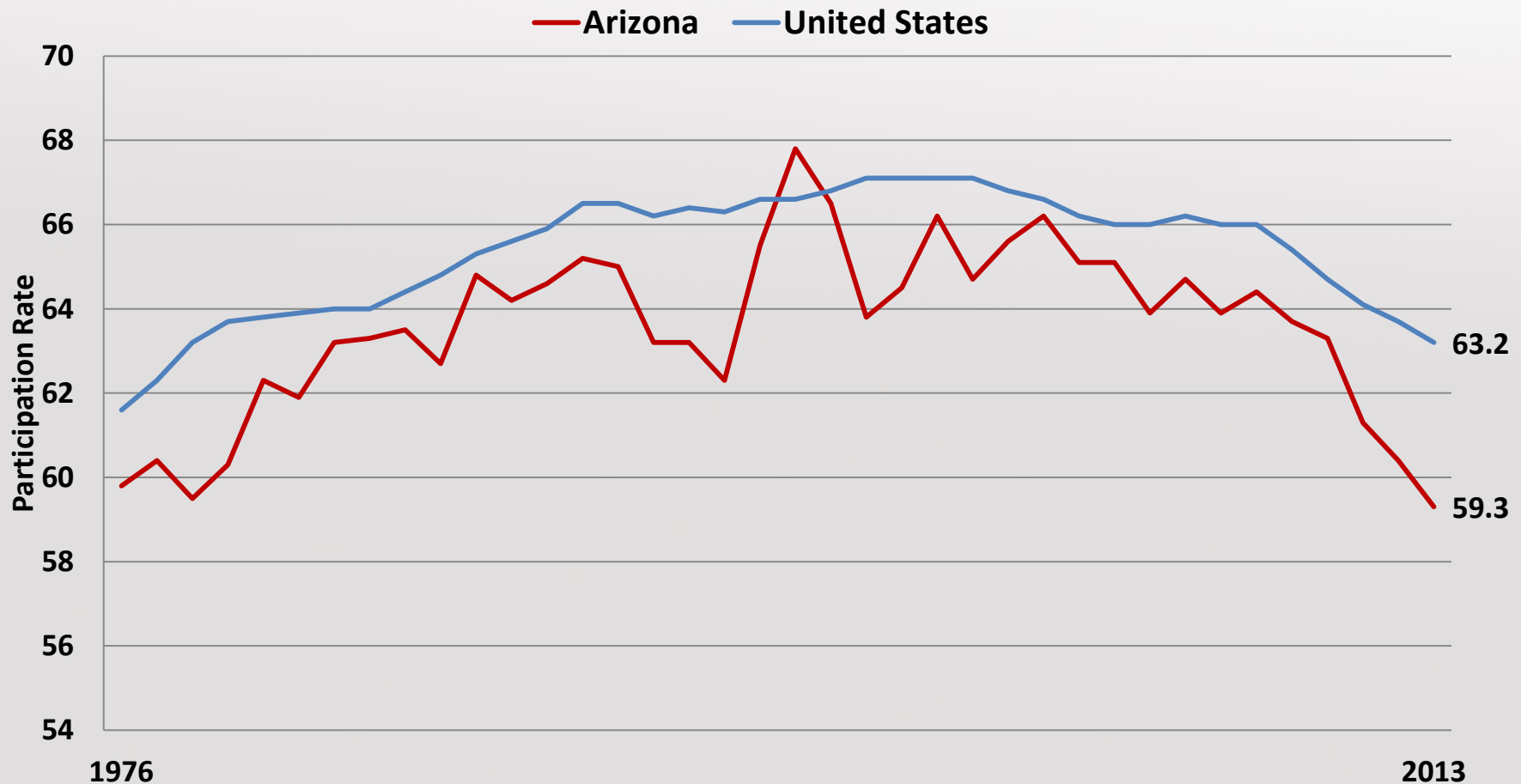


Alternative Measures of Labor Underutilization

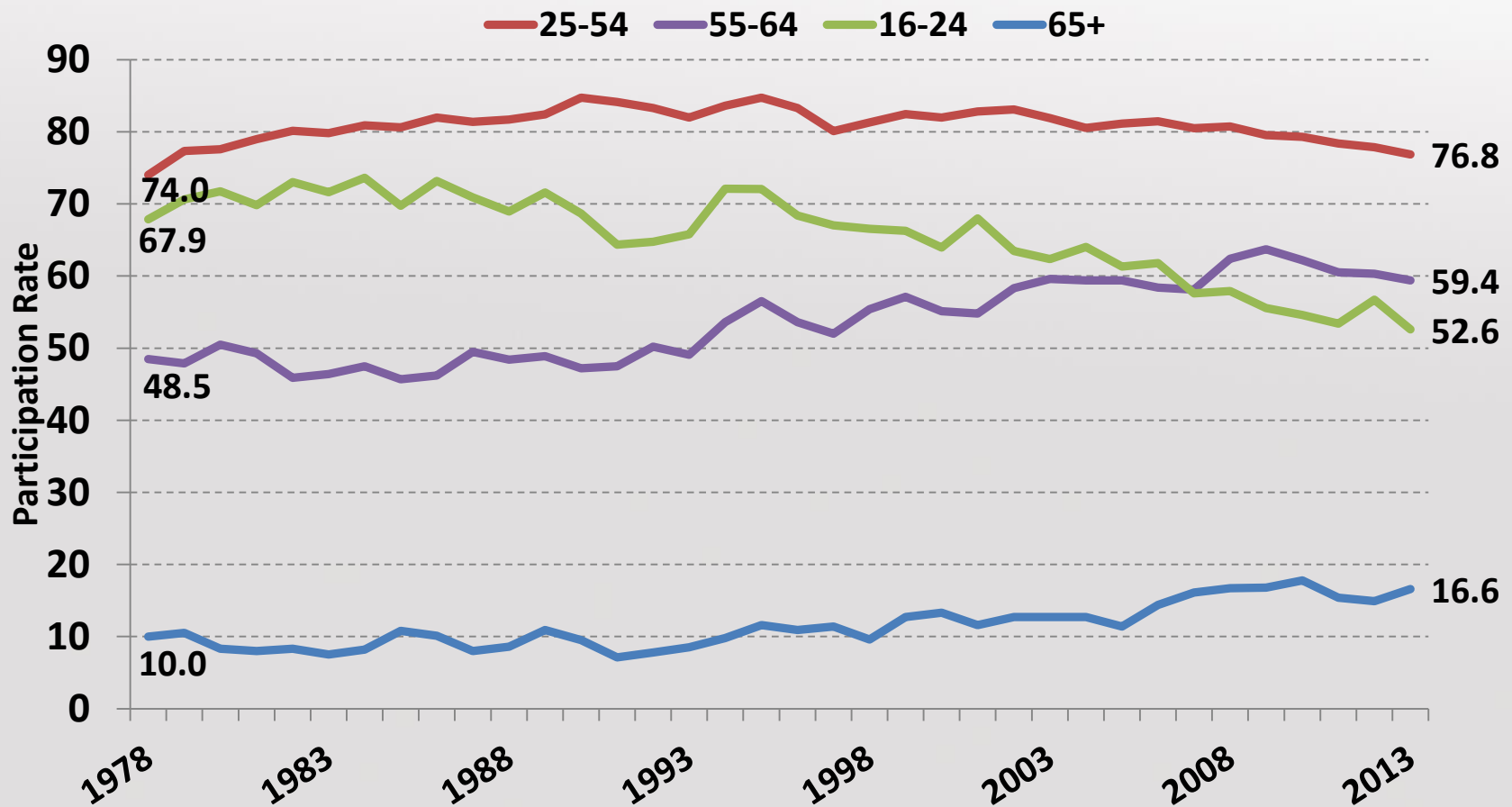
2013:Q3 - 2014:Q2 Average



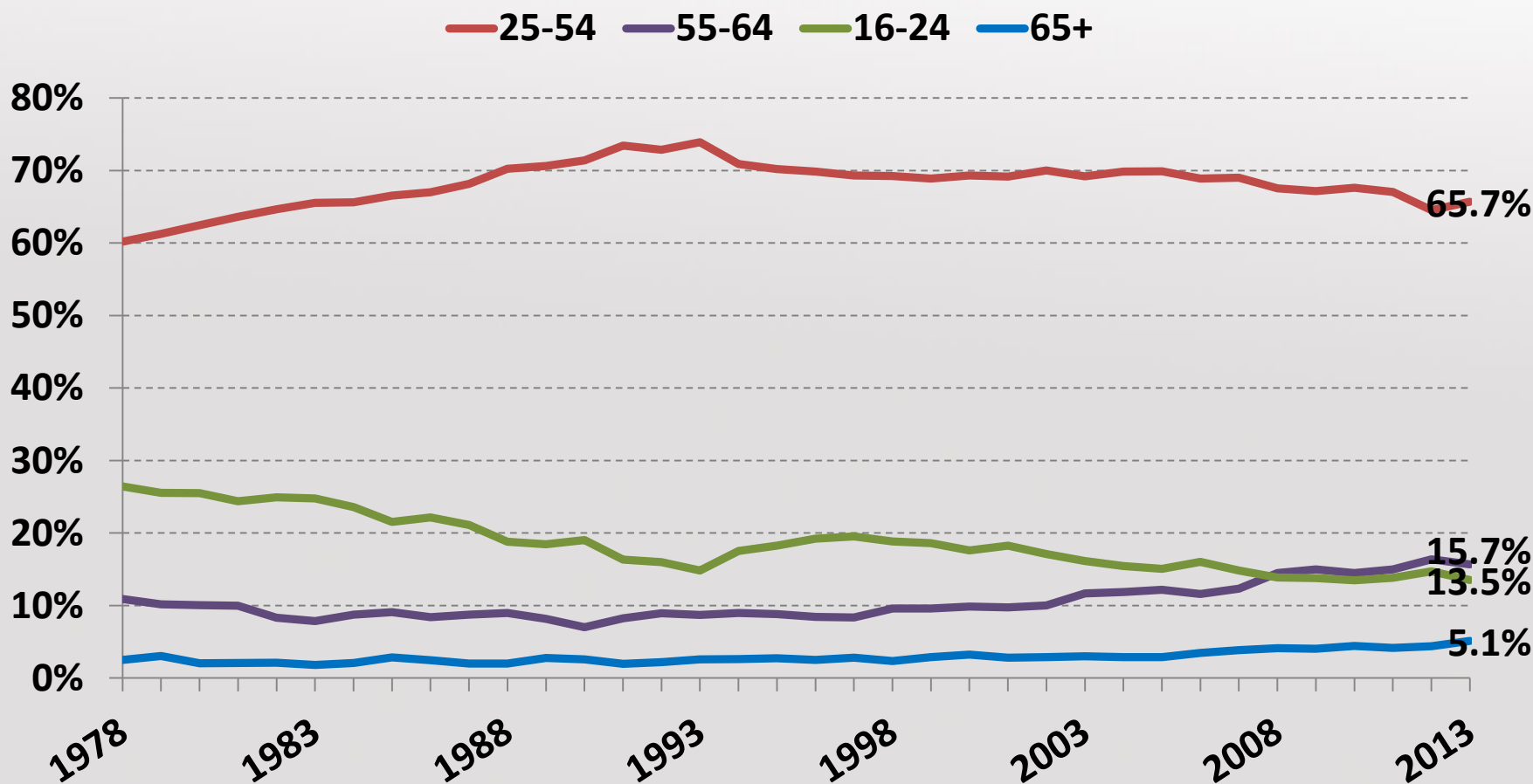
Labor Force Participation Rates



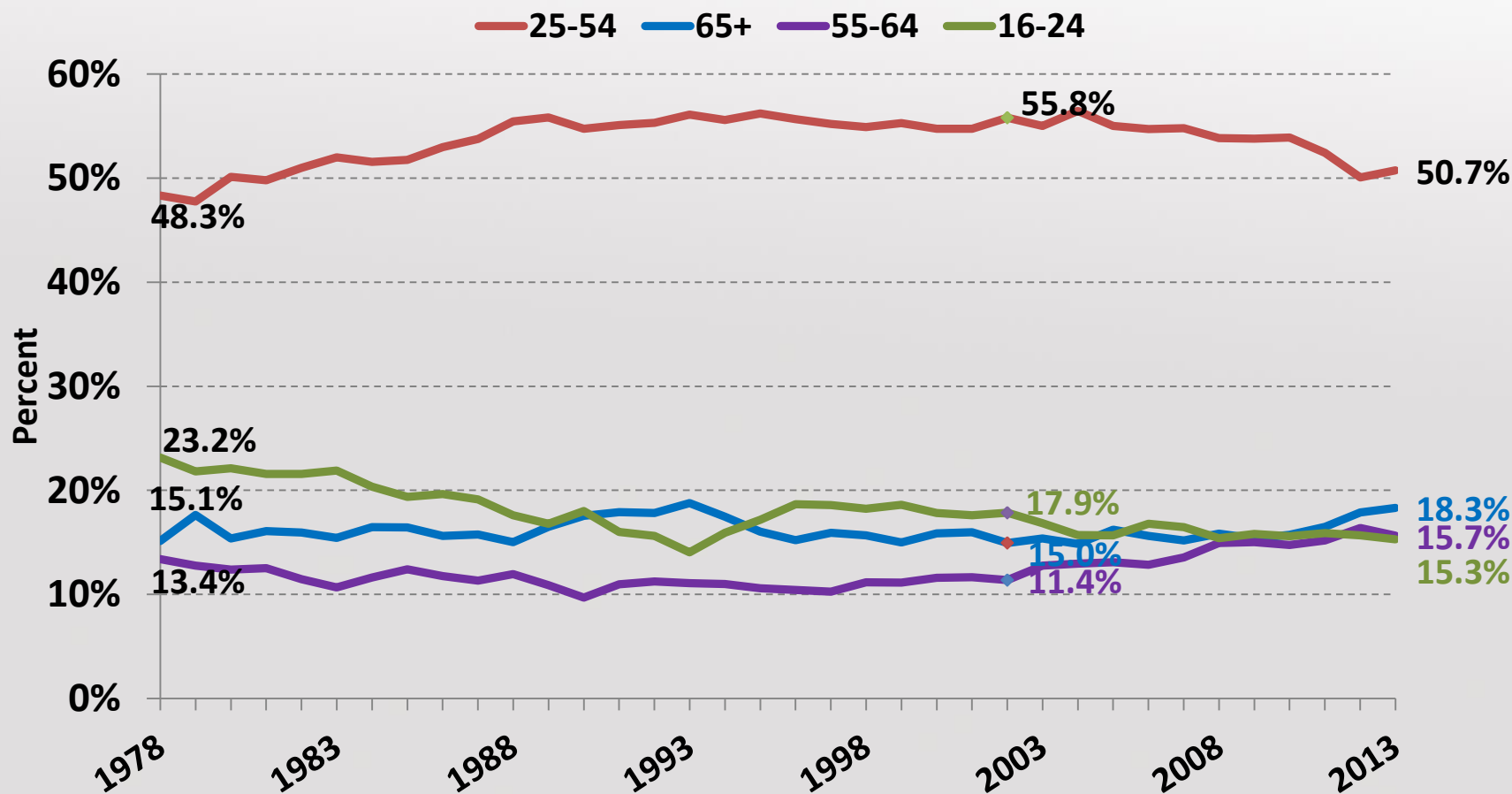
LFPR by Age Group



AZ's Total Labor Force by Age (Percent)

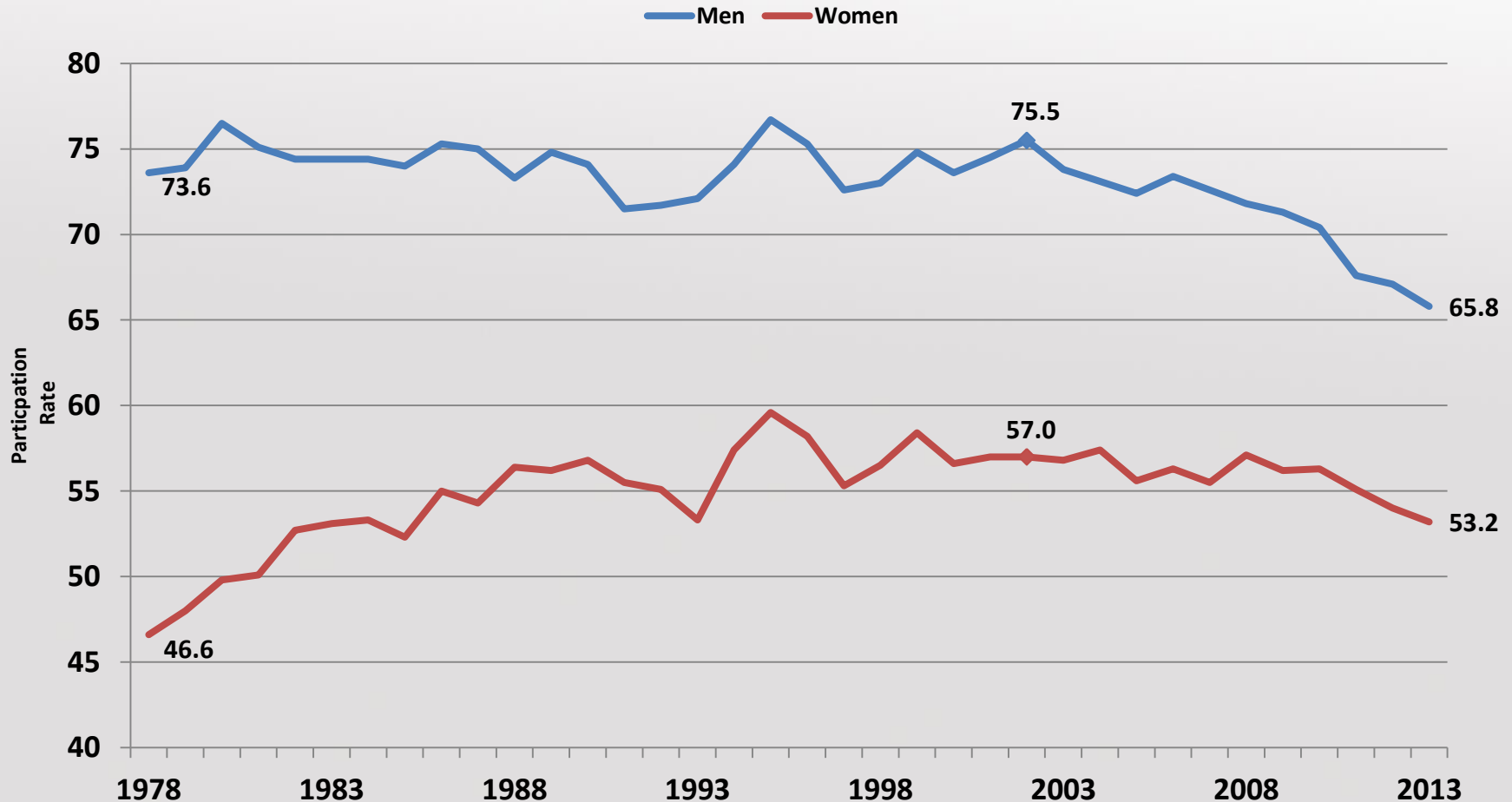


AZ's Total Population by Age (Percent)

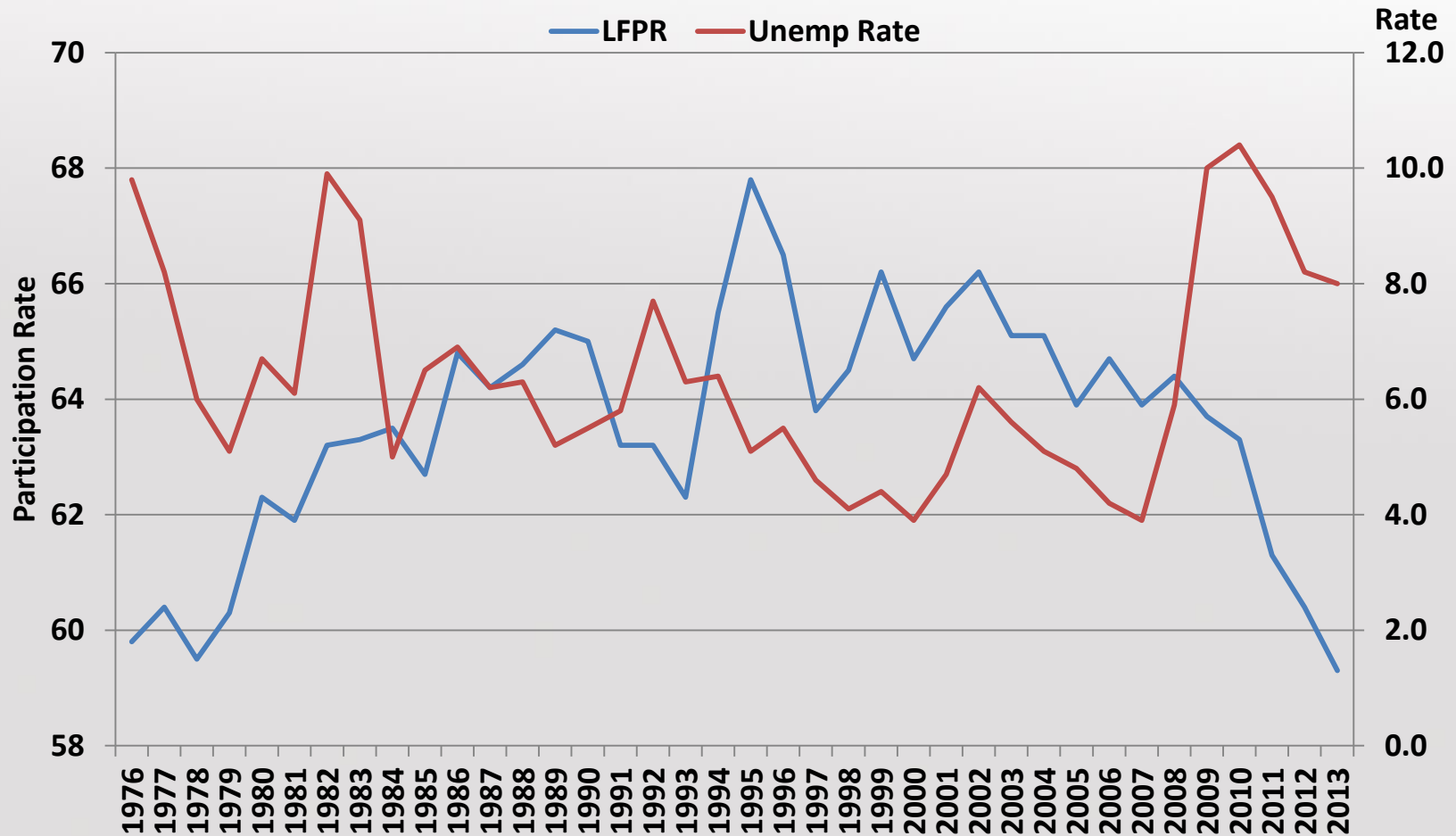


Source: CPS

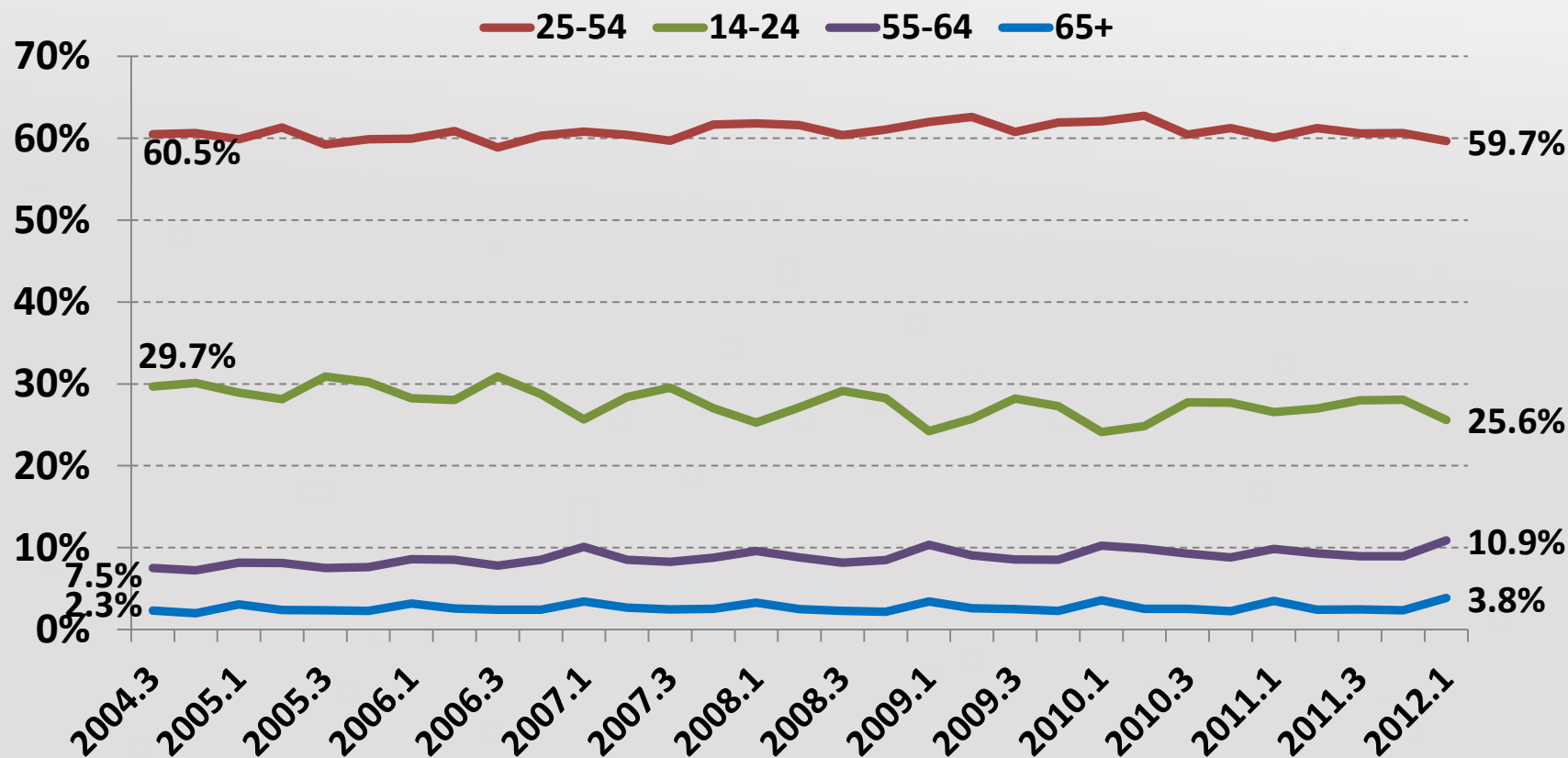
Arizona Labor Force Participation Rates by Sex



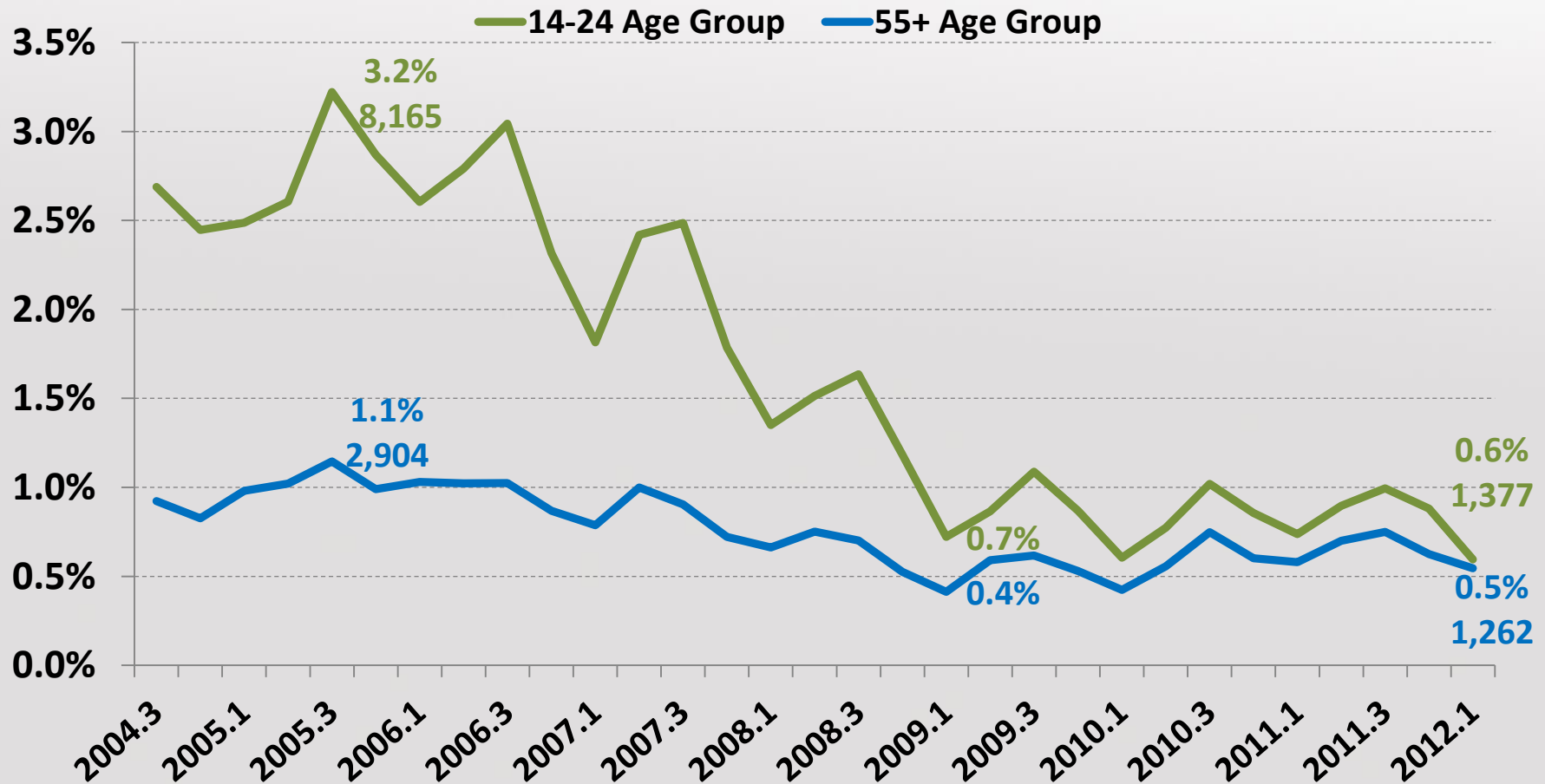
LFPR and AZ's Unemployment Rate



Percent New Hires Increasing in Older Populations, Declining in Younger



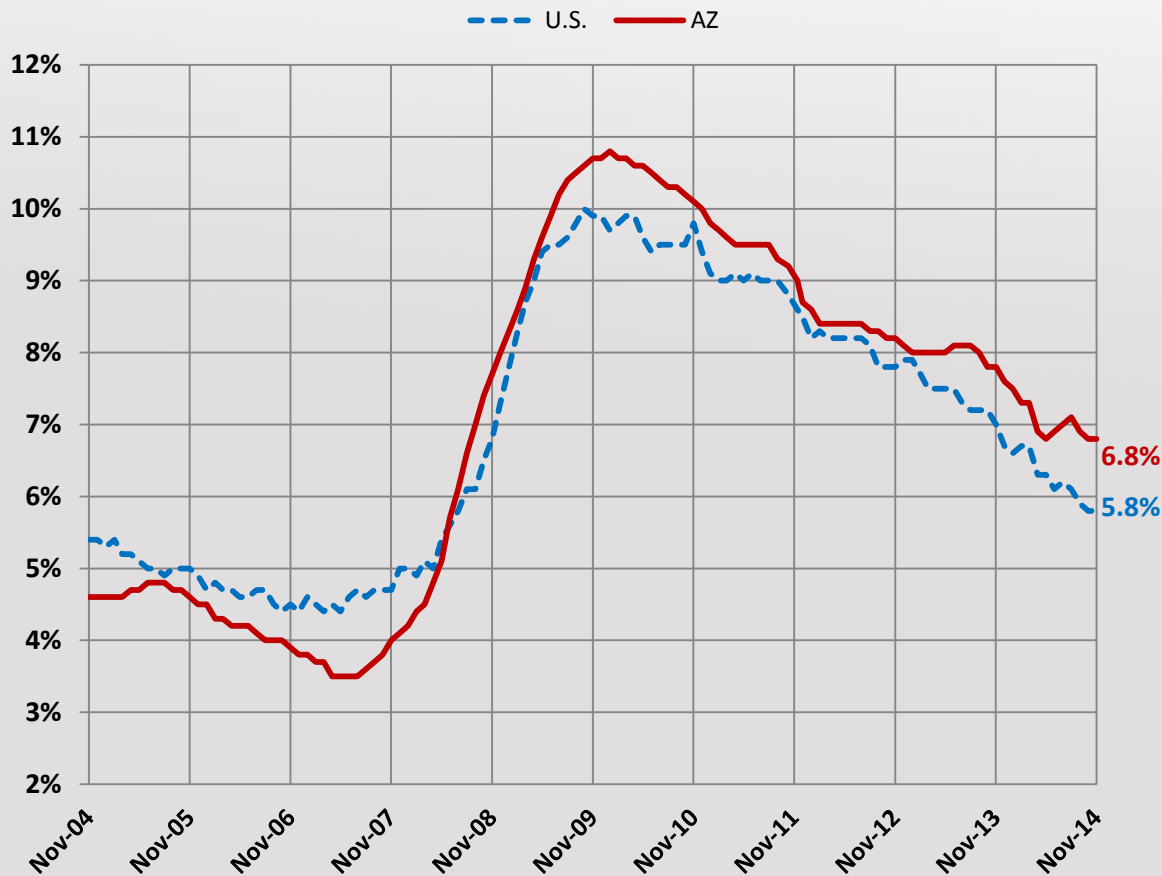
New Hires by Age in Construction



November 2014

Employment Report Highlight

Arizona & U.S. Unemployment Rate Seasonally Adjusted



- AZ unemployment rate remained unchanged at 6.8%
- U.S. unemployment rate also remained unchanged at 7.6%

Seasonally Adjusted

	Labor Force Employment		Unemployment	
	Level	Level	Level	Rate
Oct	3,049,943	2,843,273	206,670	6.8%
Nov	3,078,817	2,870,778	208,039	6.8%
Change	28,874	27,505	(1,369)	0.0%

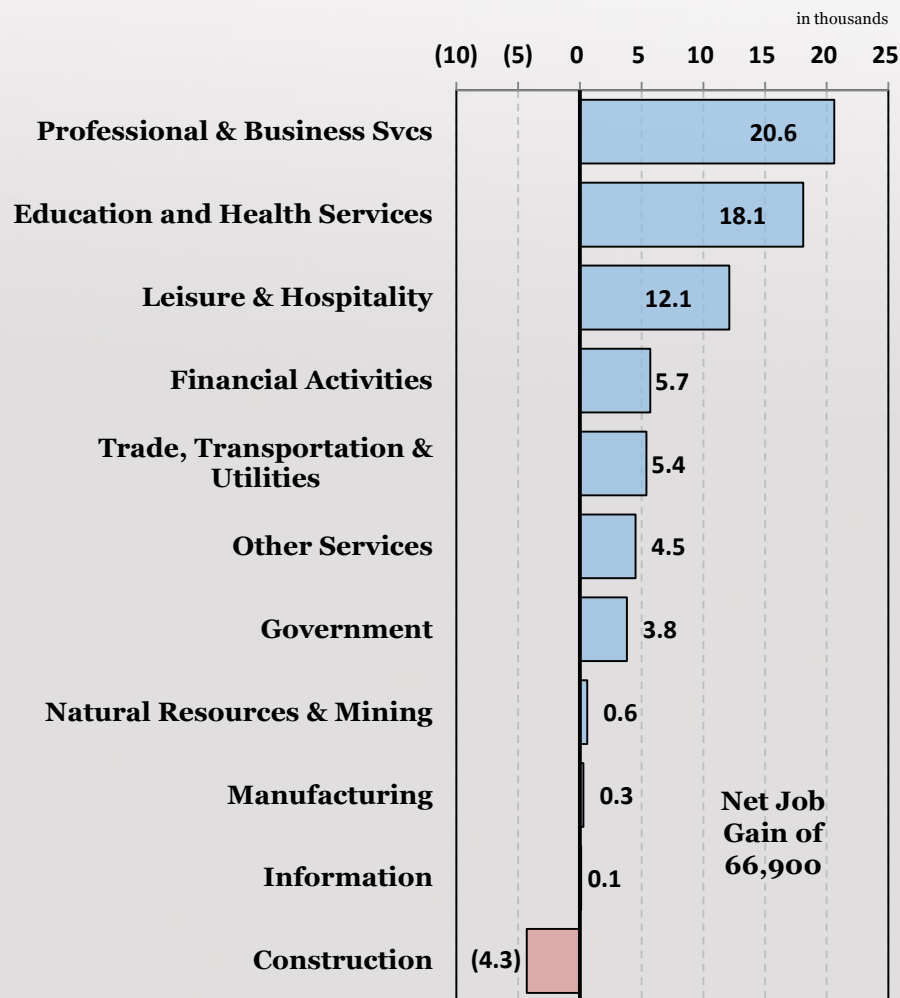
Not Seasonally Adjusted

	Labor Force Employment		Unemployment	
	Level	Level	Level	Rate
Oct	3,074,206	2,871,016	203,190	6.6%
Nov	3,117,444	2,905,578	211,866	6.8%
Change	43,238	34,562	8,676	0.2%

Regular Weekly UI Claims in Arizona

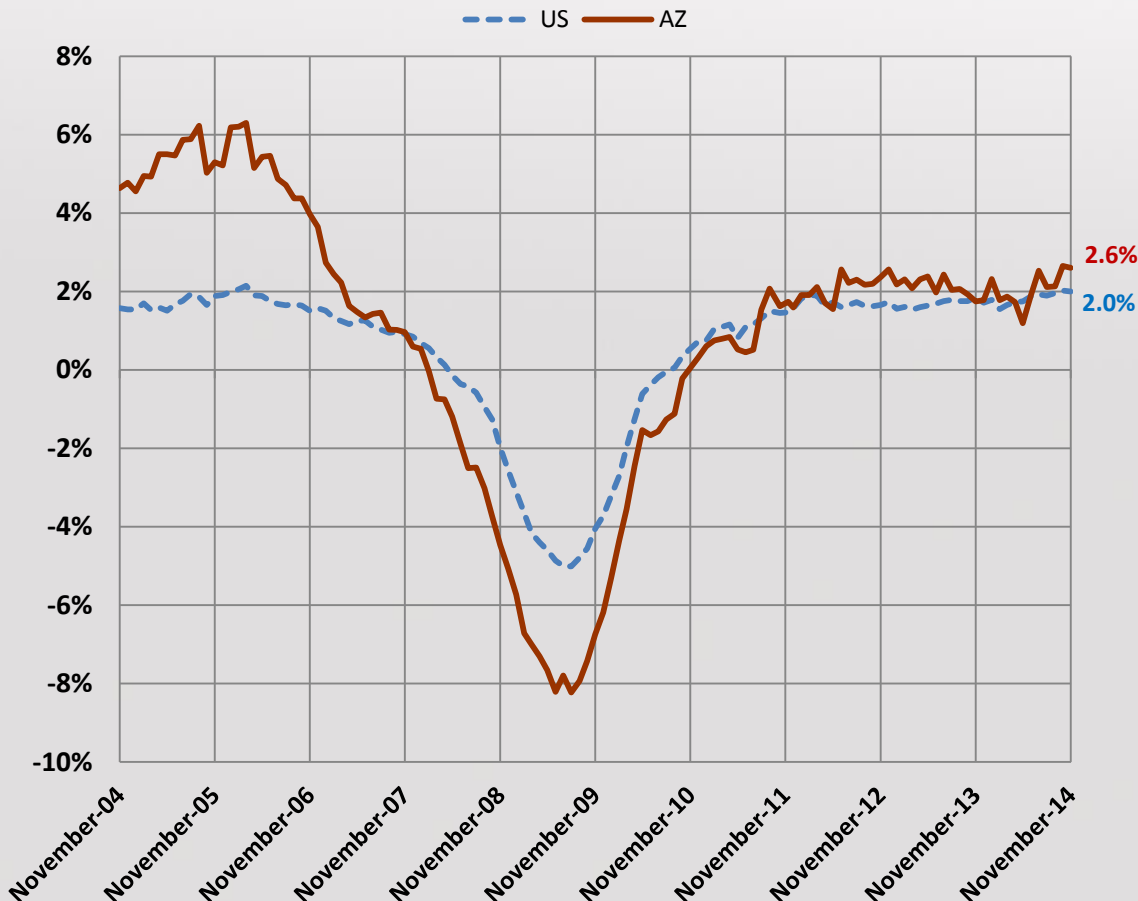


Over-the-Year Job Gain/Loss by Sector



- Arizona added 66,900 Nonfarm jobs
- November OTY Nonfarm growth rate of 2.6%
- Private Sector gains: 63,100 jobs
Government lost: 3,800 jobs
- Ten of the eleven major sectors added jobs and one had losses
- Largest employment gains: Professional and Business Services (20,600), Education and Health Services (18,100), Leisure & Hospitality (12,100)
- Only major sector loss: Construction (-4,300)

Arizona & U.S. Nonfarm Employment Year-to-Year Percent Change



- AZ over-the-year employment change was 2.6% in November
- AZ year-to-date average over-the-year employment is 2.1%
- U.S. over-the-year employment change was 2.0% in November
- US year-to-date average over-the-year employment is 1.8%

How to Use & Where to Find LMI Data

How can labor market information data help companies make data-driven decisions?

- Occupation Questions
 - What is considered a competitive wage for a particular occupation?
 - What is the turnover rate for a particular occupation?
- Labor Supply Questions
 - What is the potential labor supply level for a region?
 - What is the education level of the labor supply in a region?
- Industry Questions
 - How many firms in my industry are already located in that region?
 - What is the average wage for my industry?
 - What are the characteristics of the new hires in that industry?

Where do I get the data?

- Employment and Population Statistics
 - <https://laborstats.az.gov/>
- Bureau of Labor Statistics
 - <http://www.bls.gov/>
- Census Bureau
 - <http://www.census.gov/>

Where do I get the data?

Employment and Population Statistics Products

- Population
- Employment
- Unemployment
- Wages & Occupations
- Industry Projections
- Occupations Projections
- Education Related Products
- Other Economic Products

**Many products are unique to EPS*

Where do I get the data?

Bureau of Labor Statistics Products

- Employment
- Unemployment
- Pay & Benefits
- Education Related Products
- Inflation & Prices
- Spending & Time Use
- Productivity
- International

**Most of the data available is county or statewide*

Where do I get the data?

Census Bureau Products

- Population
- American Fact Finder: Decennial Census and Survey Data
- LEHD Origin-Destination Employment Statistics : On the Map
- LED Extraction Tool: Quarterly Workforce Indicators

**Some of the products combine industry data and census information*

How relevant/up to date is the data?

- Lag times vary widely from one month to several years. Generally, the more detailed information you want, the longer the lag time.
- Even data with long lag times can be very useful. Trends tend to change only slowly over time.

How should I use this data?

- **Craft your question carefully** – the more muddled the question, the more difficulty you will have in finding the answer
- **Become familiar with different data sets (or someone who is)** – there is no one place to find all the data you need
- **Know the limitations of your data set** – it's easy to accidentally misuse data and draw erroneous conclusions
- **Use more than one source of data** – don't lock yourself into a single estimate, consider all of the available data to get the most accurate picture

“A single model is no substitute for judicious consideration of the various indicators”

-Federal Reserve

Example Questions:

What is the expected turnover rate for web developers?

1. Go to Employment and Population Statistics <https://laborstats.az.gov/>
2. Select
 - a) Data by Topic
 - b) Employment Forecasts
 - c) Occupation Projections data
 - d) 2013-2015 Statewide Occupation Forecast Tables & Graphs
3. Look up occupation: (SOC 15-1134) Web Developers
4. Divide Projected Openings (3,608) by Openings Due to Separations (96) to get a turnover rate of 2.7%

Example Questions:

What is the potential labor supply level *in* Peoria?

1. Go to Employment and Population Statistics <https://laborstats.az.gov/>
2. Select
 - a) Data by BLS Program
 - b) Local Area Unemployment
 - c) LAUS Tables – Special Unemployment Report
 - d) Click to display or hide list of files
 - e) 2014 Special Unemployment Report
3. Look up Peoria City: November 2014 Labor Force – 80,602

Example Questions:

What is the potential labor supply level *for a worksite in* Peoria?

1. Go to On The Map <http://onthemap.ces.census.gov/>
2. Select
 - a) Start
 - i. Search: Peoria
 - ii. Search All Names: Places (Cities, CDPs, etc.)
 - b) Selection
 - i. Drawing Tools: Draw Polygon (West of 17, North of 10, South of 101, East of Dysart Rd)
 - ii. Add Layer Selection: Census Block Groups

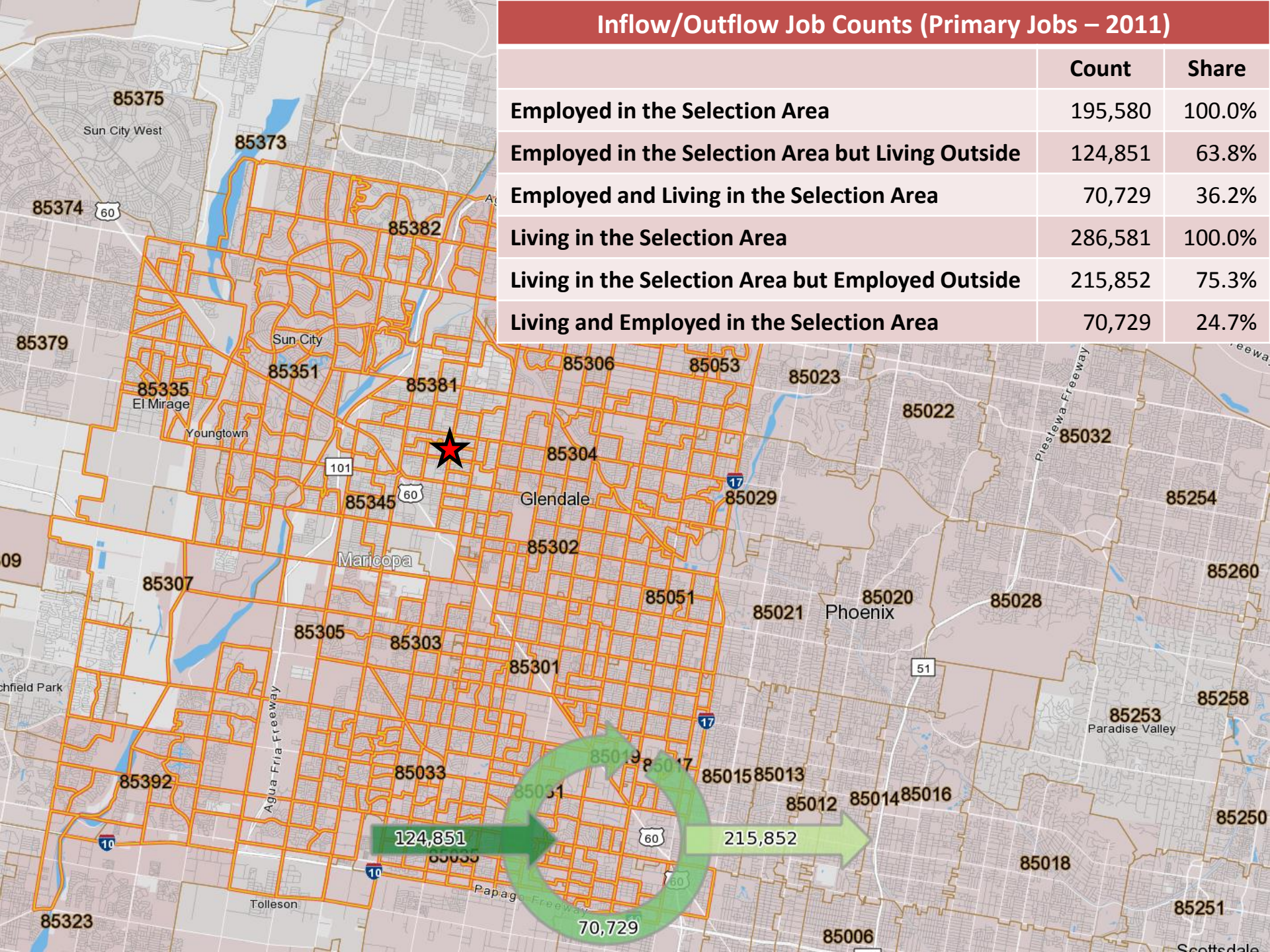
Example Questions:

What is the potential labor supply level *for a worksite in* Peoria?

- C. Perform Analysis on Selection Area
- D. Analysis Settings
 - i. Analysis Type
 - a) Inflow/Outflow
 - ii. Year
 - a) Year: 2011
 - b) Job Type: Primary Jobs
 - iii. Go!

Inflow/Outflow Job Counts (Primary Jobs – 2011)

	Count	Share
Employed in the Selection Area	195,580	100.0%
Employed in the Selection Area but Living Outside	124,851	63.8%
Employed and Living in the Selection Area	70,729	36.2%
Living in the Selection Area	286,581	100.0%
Living in the Selection Area but Employed Outside	215,852	75.3%
Living and Employed in the Selection Area	70,729	24.7%



Example Questions:

What is the education level of the labor supply in a Peoria?

1. Go to The Census Bureau <http://www.census.gov/>
2. Select
 - a) Data
 - b) Data Tools and Apps
 - c) The American FactFinder
 - d) Advanced Search
 - i. Show Me All

Example Questions:

What is the education level of the labor supply in a Peoria?

- e) Geographies
 - i. Select a geographic type: Place – 160
 - ii. Select a state: Arizona
 - iii. Select one or more geographic areas: Peoria City, Arizona
- 3. Select Table, File or Document Title: Selected Social Characteristics in the United States, 2013 American Community Survey 1-Year Estimates

Example Questions:

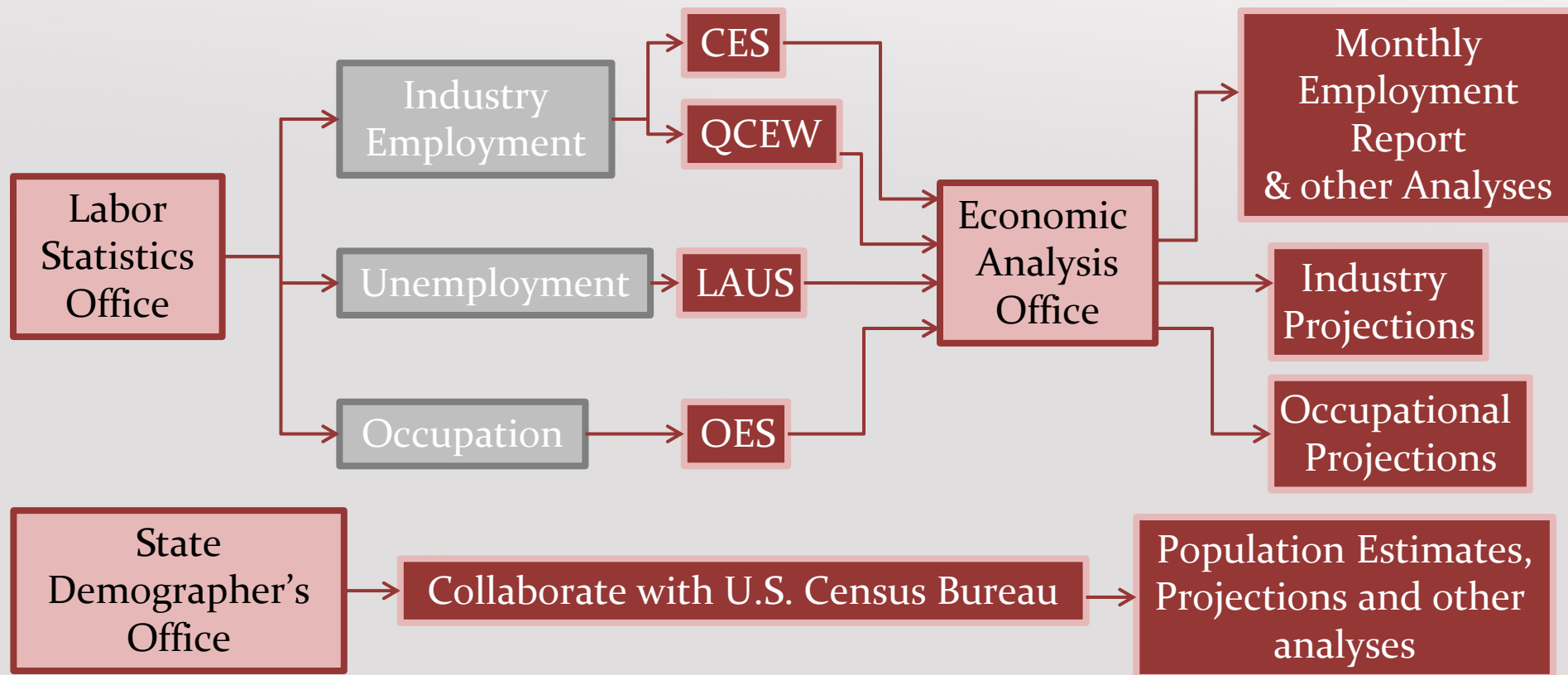
What is the education level of the labor supply in a Peoria?

Subject	Estimate	Margin of Error	Percent	Percent Margin of Error
Population 25 years and over	107,734	+/-2,941	107,734	(X)
Less than 9th grade	2,486	+/-855	2.3%	+/-0.8
9th to 12th grade, no diploma	5,021	+/-1,393	4.7%	+/-1.3
High school graduate (includes equivalency)	31,287	+/-2,963	29.0%	+/-2.8
Some college, no degree	28,858	+/-2,562	26.8%	+/-2.2
Associate's degree	8,911	+/-1,667	8.3%	+/-1.5
Bachelor's degree	19,891	+/-2,257	18.5%	+/-2.0
Graduate or professional degree	11,280	+/-1,670	10.5%	+/-1.5

An '(X)' means that the estimate is not applicable or not available

Organization & Contact Information

Office of Employment and Population Statistics, Arizona Department of Administration



LMI Data Products & Services

(include but not limited to)

Products

- Employment Estimates
- Unemployment Rate Estimates
- Wage & Income Estimates
- Industry Projections
- Occupation Projections
- Other Publications

Services

- Labor Market Analysis
- Presentation: Regional Analysis
- Presentation: Using/Understanding Labor Market data
- Presentation: Using Web-Based Data Tools
- Specialized Models/Analysis

Arizona Department of Administration

Employment and Population Statistics

Contact Information

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Email: labor.info@azstats.gov